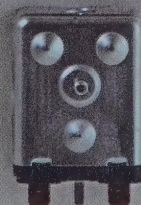
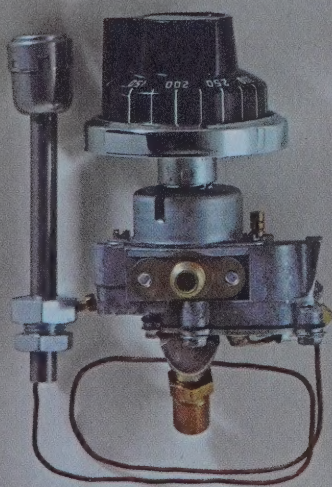
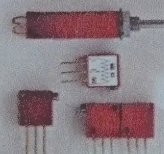
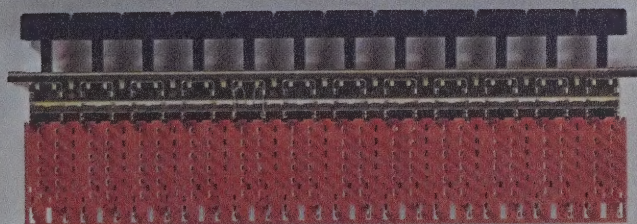
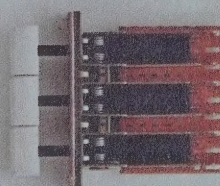
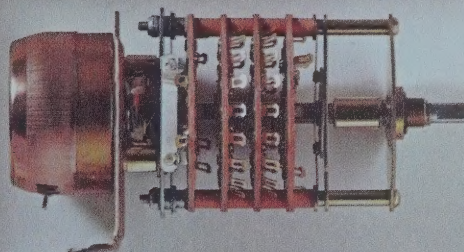
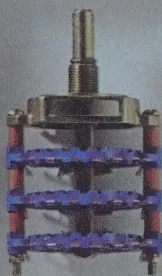
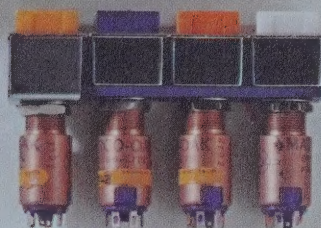
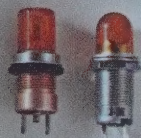


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O/E/N

ANNUAL  
REPORT

1969

OAK ELECTRO/NETICS CORP



OAK ELECTRO/NETICS CORP. is more than a profit-making organization. It influences the lives of thousands of individuals—shareholders, investors, customers, employees, suppliers and citizens in plant communities. Because of this, O/E/N works to meet its responsibilities to all segments of its public.

In striving to meet these obligations, O/E/N's performance and achievements are guided by a set of basic policies and objectives which have appeared in the company's annual reports since 1965. Those interested have a right to know what O/E/N is today and where it hopes to be tomorrow. Armed with this knowledge, they can better understand achievements of this and prior years and objectively evaluate future prospects.

#### MANAGEMENT

It shall be the policy of O/E/N to encourage autonomous operation of each subsidiary and division within the framework of overall corporate policies and objectives.

#### ACQUISITIONS

It shall be the objective of O/E/N to acquire profitable companies in the components and materials field on a basis beneficial to both ownerships.

#### EMPLOYEES

It shall be the policy of O/E/N to provide an atmosphere for the development of individual employee responsibility and sense of participation in the success of the corporation.

#### PHILOSOPHY OF LEADERSHIP

It shall be the policy of O/E/N to set a standard of excellence above the level of competition.

#### EARNINGS

It shall be the objective of O/E/N to obtain a minimum annual return on investment of 15 per cent and a minimum net profit position of 6 per cent to sales.

#### DIVIDENDS

It shall be the policy of O/E/N to distribute cash dividends on a basis to provide shareholders with a reasonable annual return while retaining adequate funds for reinvestment in the business.

#### BUSINESS

It shall be the policy of O/E/N to confine its business to the components and materials field.

#### FUTURE

It shall be the objective of O/E/N to achieve recognition as the world's most respected components producer—with engineering, production and marketing capabilities in each and every major world market.







# Index

The President's Message **1**

The O/E/N Performance **3**

Domestic Operations **6**

Research and Development **20**

International Operations **21**

Consolidated Financial Statements **28**

Ten Year Statistical Review **32**

O/E/N Organization and its Products **34**

Management Organization **36**

Board of Directors **37**

## To Our Shareholders:

Improved earnings in the face of a 5 per cent drop in sales from the 1968 level reflects the success of operational cost-cutting programs implemented by OAK ELECTRO/NETICS CORP. management in the past two years.

These measures permitted O/E/N to record improved net earnings in 1969 in the face of a softening economy.

A significant portion of the 1969 sales decline is attributed to reductions in government spending. Military sales of all O/E/N subsidiaries and divisions were off approximately \$4.1 million from 1968 levels and represent 93 per cent of the total consolidated volume dip of \$4.4 million.

At the same time, weakness in the consumer electronics industry resulted in a volume slippage of approximately \$5 million, principally in sales normally made to television set manufacturers. Almost all of this volume was replaced by sales growth in other market areas, notably the industrial segment of the electronics industry.

Sales to industrial equipment producers, as a per cent to total, increased 4 per cent over last year, while sales of television tuners decreased 8 per cent.

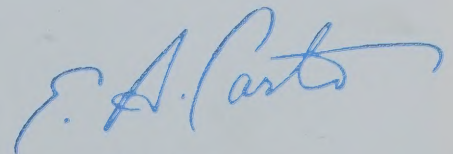
Particularly favorable for O/E/N products is the increasing demand for small computers and input-related business equipment to service the needs of large computer centers. During 1969, several new products were designed and introduced into these growing markets, particularly those relating to computer peripheral equipment, business machines, automated industrial equipment and test instruments.

In perspective, the upcoming year offers for O/E/N and the industry, a challenge—both in terms of innovation and service.

Although your management fully intends to continue as a major television tuner producer, emphasis will continue on the development of new and additional products for the electronics industry. Better and more reliable components must be provided to assure customers the performance they expect from electronic devices of all types; and this demand will create new growth opportunities for O/E/N.

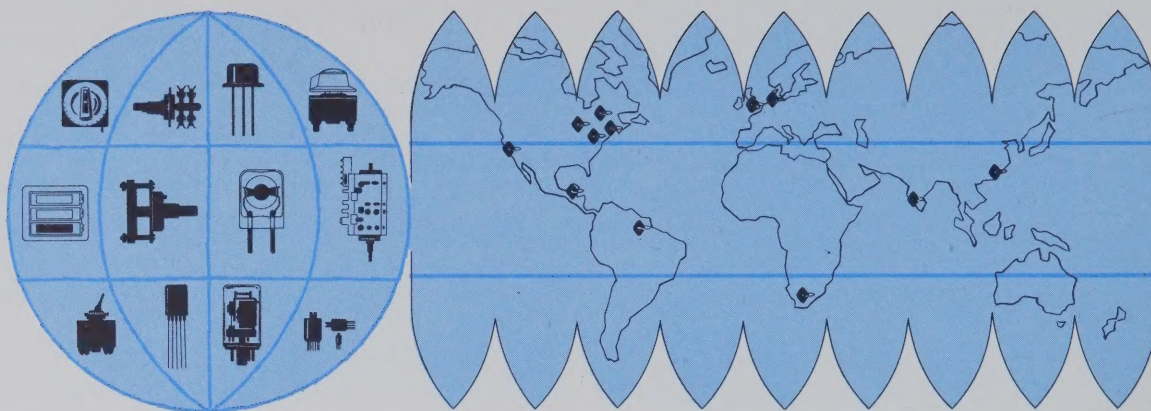
While industry experts agree the same factors that depressed last year's economy will have a dampening effect on 1970, many of the positive steps taken by your management in the past few years, coupled with new product and market planning are expected to contribute favorably to future operations.

March 5, 1970



E. A. Carter  
*President and Chairman*





## HIGHLIGHTS

	1969	1968
Net Sales .....	\$85,629,695	\$90,016,440
Income Before Income Taxes and Gain on Sale of Investment.....	2,982,290	3,227,934
Provision for Income Taxes.....	1,556,000	1,746,000
Income Before Gain on Sale of Investment.....	1,426,290	1,481,934
Gain on Sale of Investment.....	132,345	—
Net Income .....	1,558,635	1,481,934
Per Common Share.....	\$.74	\$.69
Average Common Shares Outstanding.....	1,636,253	1,633,735
Cash Dividends Paid—Common Stock.....	\$ 969,962	\$ 727,581
Per Common Share.....	\$.64	\$.64
Shareholders' Investment .....	\$24,847,091	\$24,617,626
Number of Shareholders.....	5,104	4,494
Number of Employees.....	7,312	8,998



## The O/E/N Performance

### Sales

Consolidated net sales of OAK ELECTRO/NETICS CORP. and subsidiaries in 1969 totaled \$85,629,695, down 5 per cent from the adjusted \$90,016,440 in 1968.

Figures for both years reflect the poolings-of-interests treatment of Harper-Wyman Company of Hinsdale, Illinois, acquired in March 1969; Win-West Plastics, Inc., of Wauconda, Illinois, acquired in May 1969, and Atlantic Laminates, Inc., of Franklin, New Hampshire, purchased in February 1970.

### Earnings

Net income, including a gain on the sale of an investment in an affiliated company, amounted to \$1,558,635, equivalent to 74 cents a share on 1,636,253 average shares outstanding. This compares with \$1,481,934, or 69 cents a share on 1,633,735 average shares a year earlier.

Late in the year, O/E/N sold its 49 per cent ownership interest in Japan Electro Components Company, Ltd. to its partner, Murata Mfg. Co. of Kyoto, Japan. The net gain of \$132,345 from the transaction is equivalent to 8 cents a share.

The effects of the Federal income tax surcharge reduced 1969 per share earnings by 7 cents. In 1968, the reduction was 8 cents per share.

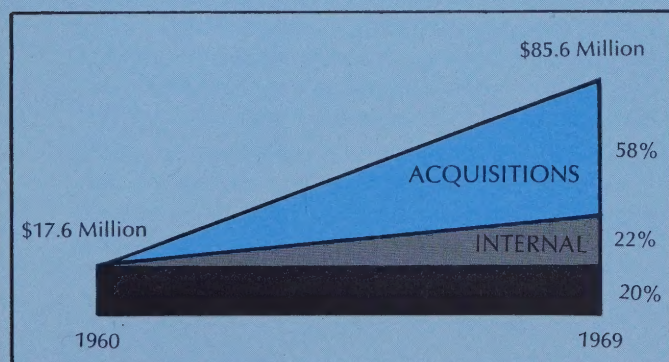
### Dividends

Cash dividend payments on the company's common stock during the year totaled 64 cents per share, the same as in 1968. The 1969 payments were 16 cents in each quarter and totaled \$969,962 for the year.

Regular quarterly dividends totaling \$352,547 were paid in 1969 on the \$4.375 Cumulative Convertible Preferred Stock.

### Growth Analysis

O/E/N's sales growth since 1960, the year its formal acquisition program was established, shows a 58 per cent growth in volume from acquisitions, with the balance coming from new product development and greater sales to existing markets.



### Sales Distribution

A breakdown of sales to principal markets, including those of acquired companies in the past five years, is as follows:

	1969	1968	1967	1966	1965
Television Tuners . . . . .	15%	23%	31%	34%	35%
Industrial Electronics . . . . .	31	27	31	31	27
Appliance Components . . . . .	29	25	8	7	12
Military . . . . .	14	18	21	15	15
Consumer Components . . . . .	11	7	9	13	11





Win-West Plastics, Wauconda,  
Illinois.

## The O/E/N Performance

### Acquisitions

Win-West Plastics, Inc., and Atlantic Laminates, Inc. were acquired for a combined total of 57,489 shares of common stock.

Win-West, a producer of plastic molded products for electronics and electrical applications, is being operated as a part of the Oak Manufacturing Co. Division under its founding management headed by Emil A. Westergaard, President.

All plastic molding functions of the Oak Division, formerly located in Crystal Lake, were transferred to Win-West's 16,000 square foot plant in Wauconda, Illinois, 11 miles from Crystal Lake.

The operation has the capability to custom mold precision plastic materials using thermoplastic and thermosetting resins including phenolics, diallyl phthalate, glasskyd and nylon materials to meet virtually all Oak Division requirements for these parts in its manufacture of rotary and pushbutton switches. It is planned that Win-West will maintain a 50-50 sales balance between O/E/N requirements and sales to outside customers in its program to achieve balanced growth.

Atlantic Laminates, which will be operated as a part of Dodge Industries, Inc., another O/E/N subsidiary located in Hoosick Falls, New York, specializes in laminating copper foil to epoxy-glass preimpregnated materials to form a laminate for printed circuit boards. These materials are used in computers, data processing units and other sophisticated electronic applications.

Atlantic Laminates' products complement the copper clad laminates of Dodge Industries and will be marketed by the existing Dodge sales organization.

The acquisition of Harper-Wyman, announced in December 1968, and approved by shareholders on March 5, 1969, was made for 440,000 shares of O/E/N common stock. Operating results of Harper-Wyman were treated under the pooling-of-interests concept in the 1968 annual report and a review of the company's 1969 performance can be found on Pages 14 and 23.



Every 45 days, a new display of works by McHenry County artists brightens the cafeteria of the Oak Manufacturing Co. main plant in Crystal Lake.



## The O/E/N Performance

### Backlog

O/E/N entered 1970 with a \$20.2 million backlog, down from the \$21.7 million a year earlier.

### Capital Expenditures

In 1969 capital expenditures amounted to \$2,935,468, principally for expansion of facilities in England and South Africa and the purchase of equipment in conjunction with expansion of the company's microelectronics and integrated circuit capabilities in the U.S. and Hong Kong.

### Employee Relations

Employee relations remained excellent throughout the year, as evidenced by a continuing preference for union-free relationships by almost 90 per cent of O/E/N's U.S. employees.

Two contracts were successfully negotiated in 1969—one calling for a two-year agreement covering 63 Tool Room employees at Crystal Lake, and the other a one-year agreement involving 13 employees at Harper-Wyman's Princeton, Illinois facility.

One contract, covering employees in Elkhorn, Wisconsin, contains a wage reopener clause scheduled for negotiation in April. No other contracts are scheduled for negotiation in 1970.

Total O/E/N salaries and wages paid to employees in 1969 amounted to \$30,820,496, compared with \$34,081,799 a year earlier.

### Management

On July 24, 1969, Carl J. Bradshaw, Vice President and Director of International Operations for O/E/N, and Philip S. Harper, Jr., President of Harper-Wyman Company, were added to the Board of Directors.

On January 29, 1970, Harry W. Petherick, Chairman of O/E/N's English subsidiary, Diamond H Controls Ltd., retired from the Board of Directors in accordance with provisions of the company's retirement policy.

O/E/N management is fortunate in that it will continue to be able to avail itself of Mr. Petherick's wisdom and counsel through his retention of the chairmanship of the English subsidiary.



## Domestic Operations

The U.S. companies in the O/E/N group continued as major contributors to total corporate sales and earnings in 1969, with sales accounting for 84 per cent of the total.

During the year the company continued product development activities to meet increasing and changing needs of the electronics industry in terms of performance and diversity.

A review of individual O/E/N domestic operations in 1969 follows.

### Oak Switch Division

*Crystal Lake, Illinois*

*1969 Market Sales: 14% Consumer; 69% Industrial;  
12% Military; 5% Appliance Components*

#### 1969 Operations

A decline in Oak Switch Division sales in 1969 was due primarily to the downturn in military spending and weakening component sales to the home entertainment industry.

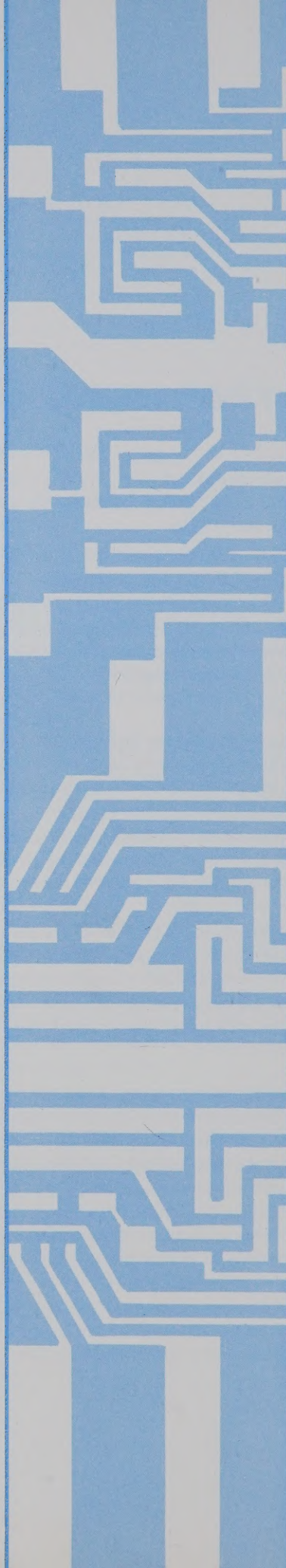
Partially offsetting the trend was a slight increase in component sales to the appliance market, principally switches for home air conditioners, electronic organs and industrial appliances such as coffee dispensers and water heaters.

While the Oak Switch Division maintained market dominance in its line of low power rotary and pushbutton switches during the year, product requirements in the electronic components market are undergoing dramatic change.

In order to anticipate changing needs and meet future demands through product modification and new product lines, Oak created an advance development engineering group to work on product developments keyed to the anticipated technological changes.

Oak is also keying production to changing patterns in market demand by emphasizing the development of electronically-activated products, which will complement the company's traditional electromechanical components.

The primary direction of capital expenditures in 1969 was to improve cost effectiveness in the manufacturing process through automation and mechanization. Increasing utilization is also being made of molding and metal stamping capabilities of both the Win-West Plastics and Hart Indiana divisions.



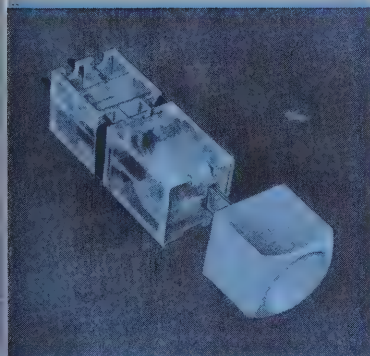




Oak prewired Rotary Solenoid Assembly is a plug-in unit for use in office copiers and other business machines.



Oak Integrated Circuit/Switch Combination.



Oak Series 400 "light touch" Keyboard Switch.

## Oak Switch Division

The new concept is readily adaptable to rotary, pushbutton, slide, toggle, lever and a wide variety of other switch types, and offers potential users excellent reliability, unmatched space economy, performance repeatability and cost savings.

To Oak, they offer the opportunity to maintain and improve its leadership position in switches.

Close behind the IC/Switch development in importance to the Oak Switch Division was the introduction in 1969 of a new keyboard type switch for the fast-growing computer peripheral equipment market.

This development not only relates to the production of switches, but involves the design, production and marketing of the entire keyboard.

These new "light touch" keyboard switches provide users with long life, up to 20 million electrical operations per key, and are "human engineered" so they require only about 100 grams of pressure for activation. This combination of long life and light touch makes them ideal for both computer peripheral gear as well as desk-top calculators.

### New Product Developments

The Oak Switch Division expanded the development and marketing activities of its integrated circuit/switch combination.

Actual sales to date and market surveys indicate this development will mean larger unit volume and a greater share of the components business for the company than would be possible with switches alone.

The IC/Switch combines two concepts—the extra dependable Oak-pioneered double wiping switch contact, and the latest state-of-the-art thick film integrated circuit techniques.

The newly-designed switches serve as the chassis for resistors, capacitors, transistors and other components which can easily be microminiaturized.

The ultimate result of this new development could be, for example, an oscilloscope in which the switches on the front panel contain all of the unit's components except the cathode ray tube.

Applications for the IC/Switch combination include all types of electronic instruments, business machines, industrial control devices, hi-fi stereo equipment, and military and commercial communications gear.





This miniature cash register is actually a demonstration device for the Oak Switch Division's Integrated Circuit Pushbutton Switch.

## Oak Switch Division

The Oak Division's companion to the "light touch" units is the Switch-in-a-Button concept, which essentially is a smaller version of the keyboard unit. This new concept, in which the switching mechanism is contained in the button itself, eliminates the need for space behind a panel and is finding excellent reception among computer and peripheral equipment makers.

With lower-cost applications in mind, Oak has developed an unlighted version of the Econo-Line pushbutton switch which offers instrument, communications and home entertainment equipment makers more switching capacity for less cost.

Also scheduled for introduction is a lighted version of the Econo-Line switch which reached the final stage of design and development in late 1969, in response to a growing demand for lighted switches in the test and measurement and computer peripheral markets.

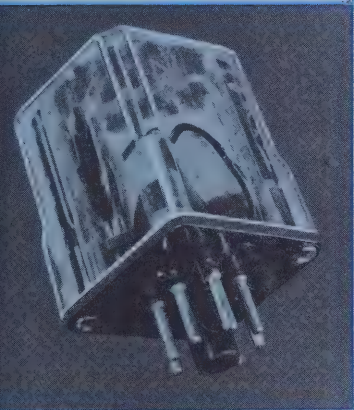
### The 1970's

The basic objective of the Switch Division in the 1970's is to maintain and increase Oak's leadership in development and production of switches for test and measurement equipment markets and to gain a dominant position with new and existing products in the computer, appliance and home electronics field.

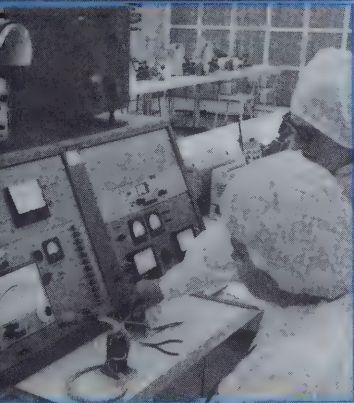
Immediate growth is anticipated in computer peripheral equipment, data terminals and source-to-tape equipment which employ extremely large numbers of pushbutton switches and keyboard assemblies.

Overall, total market estimates for switch components of the type produced by the Oak Division range from \$42½ million in 1969, to \$64½ million by 1974, an increase of more than 50 per cent. The greatest gains are expected in the pushbutton and keyboard areas during this period.

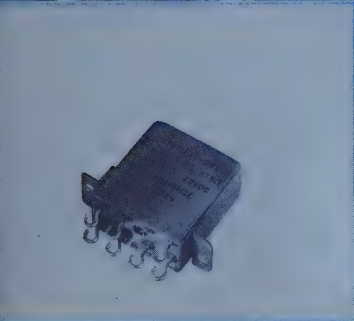




Hart-Advance general purpose relay.



Clean Room assembly and testing of relays at Elkhorn.



Hart-Advance Type 30W Miniature Relay meets all requirements of MIL-R-5757E.

## Hart-Advance Relay Division

*Crystal Lake, Illinois*

*1969 Market Sales: 78% Industrial; 22% Military*

### 1969 Operations

The Hart-Advance Relay Division, which underwent a period of consolidation and rebuilding in Elkhorn, Wisconsin, during 1968 and most of 1969, reported both higher military and total sales in 1969.

Military sales increased 82 per cent as the division reached its planned production and quality capability by mid-year, thus permitting delivery on a number of military contracts before the full impact of military cutbacks were felt.

The increased military sales more than offset softening markets in other areas, thus permitting the division to show a modest overall sales increase.

### Product Development Activities

With production and quality performance at acceptable levels, the relay division began accelerating new product and product development activities in the second half of 1969. One immediate result was U.S. government QPL approval of its Type 30W, full-size crystal can relay, making Hart-Advance one of the few companies in the U.S. to obtain this qualification and offering an opportunity to solicit additional military volume.

The QPL approval elevates the division's quality and technical reputation among potential customers for industrial versions of this unit.

### The 1970's

Plans call for the release in the latter half of 1970 of several new products designed to broaden the division's industrial product base.

Growth predictions for relays for 1970 and beyond keep pace with those of other sectors of the components industry, thus offering excellent opportunities for expanded volume. Greater market penetration opportunities lie in the development of hybrid and solid state units for industrial and military applications, and through planned utilization of Hong Kong assembly capabilities for more conventional and competitive units.



## Selectronics Division

Crystal Lake, Illinois

1969 Market Sales: 89% Television Tuners;  
11% Consumer Components

### 1969 Operations

The impact of lower television tuner sales in 1969 was cushioned somewhat as management of the Selectronics Division began to tighten controls when it became obvious early in the year that U.S. television set sales would fall far short of expectations.

At the outset of 1969, set manufacturers were predicting distributor-to-dealer sales of approximately 12.8 million TV units, compared to 11.4 million in 1968.

According to the Electronic Industries Association, unit sales in 1969 totaled 10.9 million, down 4 per cent from year ago levels and 15 per cent from early year industry forecasts.

Substantial cost savings were achieved principally through improved quality and efficiency at the major tuner assembly facility in Hong Kong, which permitted lower repair costs and quality control expenditures in the United States; lower freight costs due to improved material control and inventory management, and general and administrative cost reduction efforts to meet anticipated lower volume requirements.

### The 1970 Outlook

In anticipation of a continuing shift to overseas assembly by U.S. setmakers, particularly for monochrome units, 1970 marketing efforts have been expanded to include Hong Kong-based personnel capable of offering better sales coverage and closer technical liaison between customer companies, particularly those based in Taiwan.

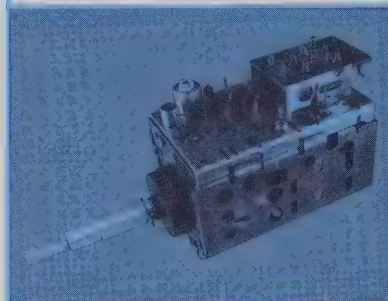
Industry estimates predict that 1.3 million sets will be produced in 1970 at Taiwan and Hong Kong under U.S. labels, a substantial increase over 1969 levels.

Selectronics, as the only established U.S. independent VHF tuner producer in the Far East, is in an excellent geographic and economic position to obtain this shifting business.

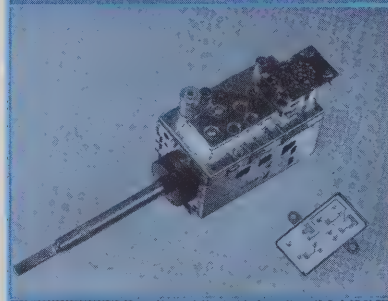
### New Product Developments

The Selectronics Division plans greater penetration of the available tuner market through the addition of new customers and greater sales to existing buyers.

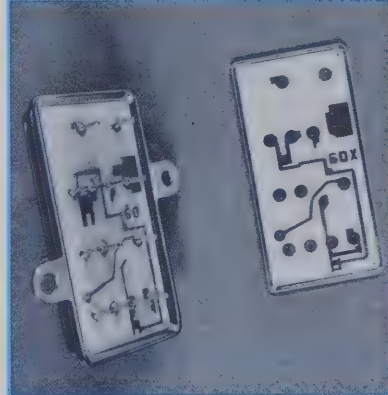
These objectives are believed achievable through a broadened line, which now includes a new low-cost tuner for portable color sets; growing acceptance of the integrated circuit VHF tuner introduced in 1969, and the availability of Varactor tuning systems whenever the industry shifts to electronic tuning.



Selectronics VHF Transistor Tuner.



Selectronics thick-film Integrated Circuit Tuner.



Selectronics Integrated Circuit Tuner Module houses every active transistor device, resistor and capacitor essential for VHF TV tuner operation.



## Selectronics Division

While Varactor units will be marketed in modest quantities by some setmakers in 1970, a significant shift to these units is not expected in the near future because of the continuing high cost of voltage variable capacitors.

Developments in electronic tuning, coupled with a recent Federal Communications Commission ruling which will require equality of tuning between VHF and UHF tuners, will result in a significant shift in tuner design.

Still to be determined, however, is the timing and direction in which the industry will move.

Nearly all TV sets in the U.S. today use a detent-type electromechanical tuner of the type produced by the Selectronics Division, which utilizes click stops to bring in VHF channels 2 through 13. The preponderance of these sets also use a continuous tuner to bring in the 70 UHF channels 14 to 83.

The FCC order calls for parity and equality between these two types of tuning, yet leaves open the question as to whether both should be of the continuous tuner or preferable detented type of unit.

From a technological standpoint, the Selectronics Division is capable of meeting any requirement established by set manufacturers.

### CATV to Grow

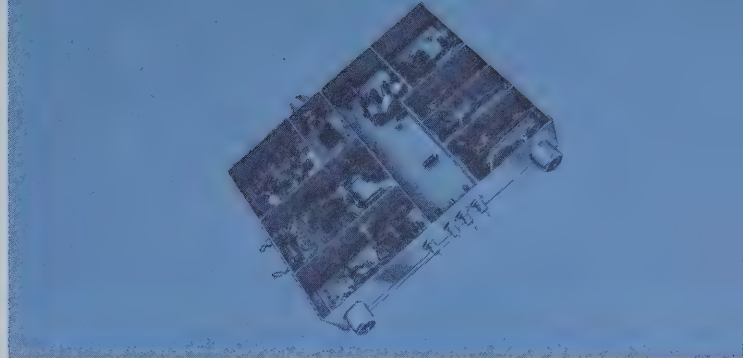
Of more immediate significance to tuner manufacturers is the growth of Community Antenna Television Systems, commonly known as CATV. These systems carry television signals into homes via cable as opposed to conventional airwave transmission.

Television sets adapted to CATV systems utilize a tuning device within a converter instead of the original tuning equipment. This converter permits interference-free reception by purifying signals received through the CATV hookup.

The design capabilities and tuner experience of Selectronics personnel have enabled the company to become a major supplier to this growing industry.

The Selectronics Division produces converter units for Manhattan Cable Television, owned by Sterling Communications, Inc., and Time-Life Broadcast, Inc., and expects to fully participate in future development of CATV.

According to a recent survey, there were more than 2,000 CATV systems serving some 11.5 million people in the United States in 1969. By 1972, industry sources estimate that 33 million will receive television via the cable. In ten years, some envision 85 per cent of all American homes will be enjoying cable television.



All-channel VHF-UHF Varactor Tuner, the Selectronics Division's fully electronic television channel selector, combines printed circuit board assembly, electronic band switching and compact size.

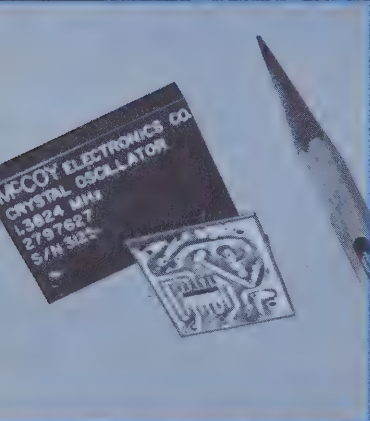


Selectronics Division CATV Converter.





Astronaut E. E. Aldrin, Jr., lunar module pilot, walks on the surface of the moon. His space suit contains components produced by O/E/N subsidiaries.



McCoy engineers lead the industry in state-of-the-art advancements, resulting in smaller electronic components offering higher reliability and greater performance.



Interior view of Apollo II Lunar Module shows some of the displays and controls. O/E/N components have been used in all NASA programs.

## McCoy Electronics Company

*Mt. Holly Springs, Pennsylvania*

*1969 Market Sales: 47% Industrial; 53% Military*

### 1969 Operations

McCoy Electronics Company industrial sales of frequency control devices increased 10 per cent in 1969, an advance that was more than offset by a 23 per cent decline in military business. As a result, total sales declined 11 per cent during the year.

Quality standards of McCoy products were never in greater evidence than in 1969, as the company continued to be a major supplier of crystals and filters for the nation's space programs.

McCoy units were instrumental in keeping communications channels free and clear of interference throughout both 1969 Apollo moon flights. These units, which were contained in the Transponder/Receiver units on the Command Module and in the astronauts' helmets, provided the only voice and TV link the astronauts had with earth after their spacecraft reached 30,000 miles from earth.

Once on the moon, McCoy units were instrumental in transmitting the first voice and TV pictures sent to earth. McCoy crystals and filters were also utilized in the Apollo telemetry data processing program and the IBM Trajectory unit, which kept the moon flight on course.

### New Product Developments

During the year McCoy continued to lead its industry in crystal and filter state-of-the-art advancements. Among new products introduced in 1969 were:

- A new line of Quartz Crystal Filters featuring acoustically coupled resonators on a single quartz plate. These units replace many conventional crystal filters with greater reliability, lower aging rate, reduced size and weight, superior temperature characteristics and improved economy.
- A tiny precision crystal that will operate in the 2.0 to 4.0 MHz frequency range. These find application in communications equipment where space is of maximum consideration.



Overall view of Mission Control Room at the Manned Spacecraft Center, Houston, Texas, during Apollo 11 space flight.



New FET Crystal Filter produced by McCoy Electronics for interference-free airport communications.

## McCoy Electronics Company

- A new line of Voltage Controlled Crystal Oscillators which offer high reliability performance in a tiny TO-5 coldweld holder. These units were designed for communications transmitters.
- The most significant development was the introduction of a new line of field effect transistor integrated crystal filter networks. One of the designs permits interference-free communications between aircraft and control towers at heavily trafficked airports.

McCoy is the sole developer of these FET filters at the request of the Federal Aviation Administration and has received initial orders from the FAA for units to be installed at John F. Kennedy Airport in New York, Chicago's O'Hare Field, Los Angeles' International Airport and Love Field in Dallas.

Another FET filter design permits ship and aircraft navigators to pinpoint their positions to a degree of accuracy never before attainable by receiving interference-free signals from navigational satellites.

Initial orders have been received for these devices from the government and major communications equipment manufacturers.

Application potential exists for these devices aboard every seagoing vessel, aircraft and at virtually every airport throughout the world.

McCoy's proprietary crystal designs, incorporating solid state technology, in conjunction with its unique filter engineering capability, affords a significant lead over competition in the marketing of this product.

### The 1970's

Other product programs under development for the future will be geared to growing industrial markets. Among them are tiny crystals for electronic wrist watches and clocks; ultra stable crystals for frequency synthesizers; ultra stable oscillators for timing devices; thick and thin film integrated circuits for use in McCoy oscillators and filters, and development of crystal filters in the 200 to 400 MHz frequency range.

These developments should enable McCoy to increase its penetration in the crystal and filter markets, which are expected to grow by 25 per cent within the next five years, from an estimated \$52 million in 1969 to \$65 million by 1974.



## Harper-Wyman Company

Hinsdale, Illinois

1969 Market Sales: 7% Military; 93% Appliance Components

### 1969 Operations

Harper-Wyman Company partially offset a 56 per cent decline in military sales with a 14 per cent increase in sales of its broad line of appliance components. As a result, total sales increased 2 per cent from 1968 levels.

The excellent improvement in civilian sales was achieved through greater penetration of the gas appliance market with its line of control devices, most notably valves for standard gas ranges, shut-off valves and regulators for outdoor barbecues, and shut-off valves for gas lights.

However, the decline of military business, coupled with lower housing starts in the U.S., resulted in lower-than-targeted after tax earnings for the year.

As a result, 40,000 shares of O/E/N common stock, held in escrow under terms of the 1969 acquisition agreement for delivery to Harper-Wyman shareholders if the company had achieved net earnings of \$800,000 or more for the year, were returned to O/E/N in March 1970.

### New Product Developments

Harper-Wyman plans to introduce several new products to sustain the steady rate of sales increases experienced in recent years.

By mid-1970, the company plans to introduce a new corrosion-resistant, stainless steel alloy outdoor gas barbecue burner. Existing cast iron units currently used by the industry are vulnerable to corrosion and cause field service problems.

For standard gas ranges, Harper-Wyman began volume production of a new and more precise pressure regulator in the first quarter of 1970.

The company is also designing an automatic control device, under an exclusive license from a French inventor, which shuts off space heaters or gas appliances when the level-of oxygen reaches a dangerously low level.

The modified French unit, which will be proprietary to the U.S. market, is very timely and solves this traditional problem with space and room heaters.

### The 1970's

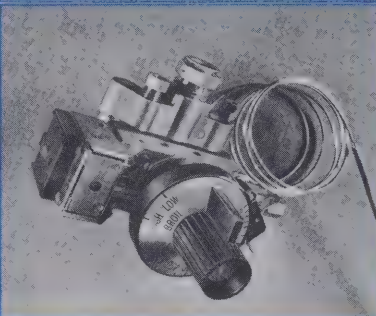
Introduction is anticipated in 1971 of an easy-to-clean burner for gas ranges. The convenience feature of an easy-to-clean gas burner is desirable to the housewife and has previously been unobtainable because of the multiplicity of gases supplied to homes. The growing trend to natural gas makes the marketing of such a device practical.

The company also plans to expand its market position through product development activities directed toward the fast-growing, leisure-oriented appliance market, such as travel trailer ranges, outdoor gas barbecues and lights, and in the more stable fields of space heaters and clothes dryers.

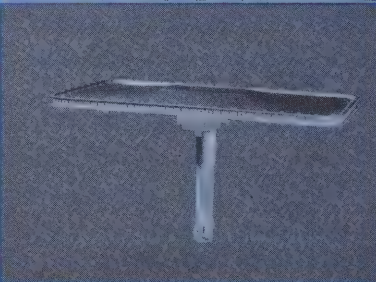
Altogether the markets served by Harper-Wyman represented a sales potential of \$100 million in 1969 and are expected to expand by more than 30 per cent in the next five years.



Harper-Wyman Hi-Low Top Burner Valves are precision-engineered to provide correct heat for cooking needs.



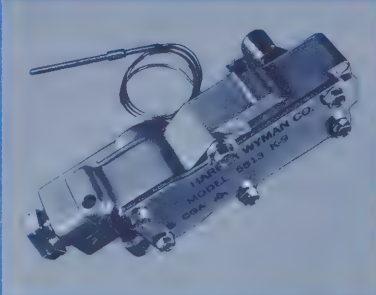
Harper-Wyman Thermostatic Oven Heat Control-Programmer.



Harper-Wyman's new stainless steel Outdoor Gas Barbecue Burner.



Top-Burner Assembly for ranges, produced by Harper-Wyman.

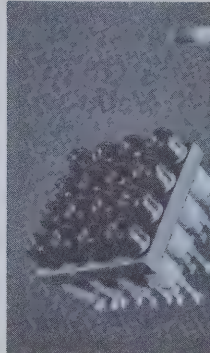


Safety controls produced by Harper-Wyman provide programmed safe lighting for small gas appliances.

Marco-Oak Presslites (illuminated pushbutton switches).



Marco-Oak new QT subminiature indicator lights fit 16 to a square inch.



## Marco-Oak Industries

Anaheim, California

1969 Market Sales: 55% Industrial; 40% Military; 5% Appliance Components

### 1969 Operations

Marco-Oak Industries reported a 62 per cent increase in sales to industrial customers in 1969, which more than offset a decline in military business. The company's line of indicator lights and illuminated pushbutton switches are finding ever-widening applications in computers, communications, transportation, recreation and related industrial equipment.

During the year, the company's distributor organization was expanded to provide broader sales outlets for standard types of both indicators and Presslites. This move permitted Marco-Oak sales representatives to concentrate efforts on new custom products for original equipment manufacturers.

### New Product Developments

Emphasis in product development is being continued on a new series of rectangular lights to replace the company's existing Missilite line with such new design features as multi-lamp and split legend lens caps, interlocks, multiple pole switching and prismatic lens caps.

Working in conjunction with O/E/N's Interface Devices Design Group, Marco-Oak is introducing a line of Presslites and indicators utilizing the prism principle for reflection purposes. The product line offers a new method of low-cost, easily-changed information displays by using either ambient light or electrical illumination along with color and/or legends.

Availability of these devices solves a major visual problem under certain environmental conditions where high natural light intensities obscure a legend, even when readout

indicators are illuminated. Aircraft instrument panels during daylight flight operations are a typical example of such conditions.

### The 1970's

Capital expenditures for new tooling, machinery and equipment in 1970 are scheduled to be three times greater than last year. While much of this funding will support new product programs, extensive outlays for automated equipment are planned as part of an overall program designed to increase productivity and efficiencies.

Beyond the current year, Marco-Oak plans to adapt and expand its product line to meet technological trends of the 1970's. The most conspicuous trends are miniaturization and the need for more complex switching to be performed by solid state devices requiring low current mechanical switches for actuation.

Marco-Oak's engineering ability to meet these requirements, plus the emphasis on improving the aesthetic appearance of its products while standardizing switching mechanisms, should permit growth in 1970 and beyond at a rate greater than exists for the industry as a whole.

It is anticipated that the illuminated pushbutton switch market will increase to \$16 million by 1974, a 45 per cent increase over the approximate \$11 million in 1969.

The market outlook for indicator lights suggests more modest growth, from approximately \$20½ million in 1969 to \$24 million in 1974, an increase of 17 per cent. While this rate of growth is relatively low, Marco-Oak expects to more than double its penetration of this market through the introduction of new products and expanded distributor sales.

To meet anticipated growth requirements, a 40,000 square foot facility is scheduled for completion in Anaheim in early 1971, which will more than double the company's present production capability.



Proposed new plant of Los Angeles Miniature Products at Gardena, California.



## Los Angeles Miniature Products, Inc. Gardena, California

1969 Market Sales: 60% Industrial; 40% Military

### 1969 Operations

Los Angeles Miniature Products, Inc. reported excellent gains in both sales and earnings during 1969.

The increases are attributable to further penetration of the subminiature lamp market, particularly with smaller units of the type produced by LAMPS being specified more frequently by miniaturization-conscious equipment manufacturers.

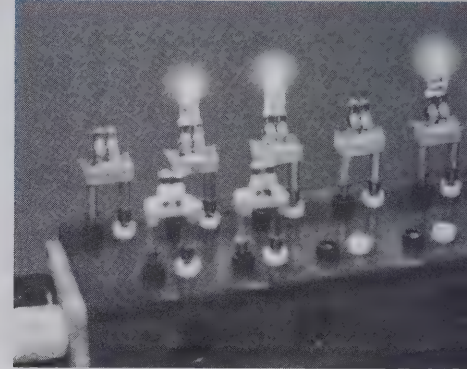
The division continued as the nation's leading supplier of units for commercial jet equipment and is serving as sole supplier of approximately 1,000 miniature lamps for each new Boeing 747.

### New Product Developments

During the year, LAMPS received initial production orders for newly-designed neon lamps, some measuring as small as 3/32 inch in diameter. These low-cost units feature long life characteristics under tough environmental conditions and are particularly applicable in computer consoles requiring high density usage.

Initial production of the company's quartz halogen lamp began early in 1970. Principal applications are found in commercial projection equipment and optical systems. Total current market for these units, including planned designs for lamps to meet high intensity needs such as in TV equipment used for indoor sports event coverage, is estimated at \$15 million to \$18 million.

Early in 1970, LAMPS began production of special double-lamp units for a video telephone system, scheduled for introduction to the consumer market in 1971. This unique, single-unit design incorporates a red and a white bulb, and is capable of fitting into a conventional lighted telephone pushbutton. On incoming calls, the red bulb will indicate a video call—the white, audio.



LAMPS new Quartz Halogen Lamps undergo rigid testing.

This development, coupled with significant orders for conventional telephone bulbs, will make LAMPS a major independent source of miniature telephone lamps.

### The 1970's

The immediate and long range outlook for Los Angeles Miniature Products is excellent. Miniature lamp market growth should far exceed that of other component areas in coming years due to the continuing trend toward miniaturization.

The LAMPS organization should grow at an even greater rate than its industry for several reasons. Most notable are the proprietary characteristics of production techniques and leadership in the development of automated equipment, both of which should sustain the company's excellent rate of sales and profitability.

A new 30,000 square foot plant near Gardena is scheduled for completion about August 1, 1970, which will permit LAMPS to meet growth requirements at least through the mid-1970's.

## Techno-Components Corp.

Van Nuys, California

1969 Market Sales 87% Military; 13% Industrial

### 1969 Operations

Techno-Components, more than 85 per cent military sales oriented in 1969, suffered a 16 per cent decline in total volume as a result of defense spending cutbacks.

In a move to lessen dependence on the military, Techno last year introduced a Ten Turn, 5/16 inch square trimming potentiometer for application in the electronic test equipment field, particularly for oscillator and digital readout equipment.

Tooling was also released for single and multi-turn infinite resolution, 1/4 inch thick film units, designed specifically for the non-military market.

These low-cost potentiometers will find application in such industrial and commercial equipment as computers, television and hi-fi equipment, testing devices, automated machinery and encoding and decoding equipment.

At year end, Techno had qualified product listing (QPL) approval on five styles of its 3/8 inch square wire wound unit; three versions of its 3/8 inch thick film unit, and three designs of its 1/4 inch wire wound unit. Two additional 3/8 inch models are awaiting approval at the Defense Electronics Supply Center in Dayton, Ohio.

The new QPL listing relates to MIL-R-39015, a newly-established reliability specification which calls for several rigid requirements, including 100 per cent testing and inspection, severe environmental tests and extra-long life specifications. The new specification reflects the government's increased reliability requirements for military and large aerospace defense contracts.

As each component manufacturer receives QPL approval, customers are required to use such products by the Department of Defense in lieu of non-standard devices.

Essentially, Techno's QPL units are used in the nation's missile applications, most notably the Standard, Standard Arm and Posiedon Missile Programs.

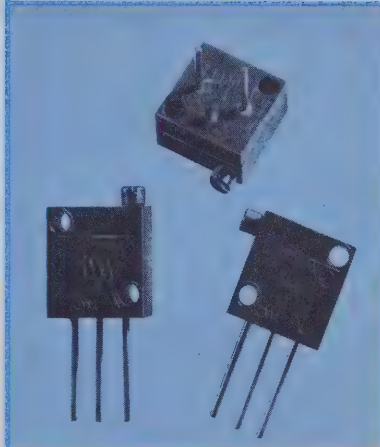
### New Product Developments

New product plans for 1970 call for the introduction of Techno's Optopot, an infinite resolution trimming unit which uses light intensity to control resistance, designed specifically for the industrial market.

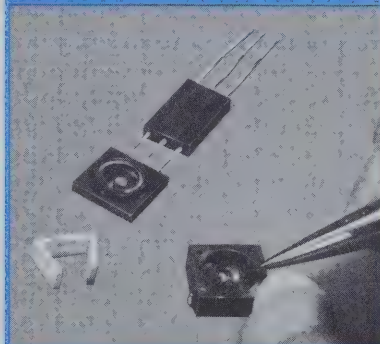
The Optopot will be sold in conjunction with an RC network integrated circuit, thus forming a dual in-line package for automatic circuit board insertion.

### The 1970's

The division's new product efforts, plus adaptation of existing products for industrial applications, should permit the company to realize a targeted sales objective of 30 per cent industrial and 70 per cent military by 1973.



Techno-Components tiny potentiometers are noted for high reliability and find application in many of the nation's missile programs.



Techno's engineering attention in 1969 was directed to broadening the company's line of Infinite Resolution Thick-Film Potentiometers.



Techno's Ten Turn potentiometer finds application in electronic test equipment.





Dodge Industries, Hoosick Falls, New York, general offices and principal manufacturing facility.



Dodge Industries PTFE tapes, yarns and sheet materials.

## Dodge Industries, Inc.

*Hoosick Falls, New York*

*1969 Market Sales: 40% Industrial; 16% Military; 44% Consumer*

### 1969 Operations

Dodge Industries reported record sales in 1969, attributable principally to a stronger marketing organization which provided better coverage among users of its line of extruded and coated products.

Dodge, through its Circuit Materials Division, also increased sales of adhesive coated materials, oils and plastic films—to the automotive and computer industries. CMC products, used in printed circuit applications, are found in automotive electrical systems, data processing and communications equipment.

Dodge substantially increased profits primarily as a result of several in-plant and product cost reduction programs initiated without sacrificing delivery, quality or performance.

Capital expenditures, totaling \$224,000, were made to expand production facilities for yarns, tapes and laminates, all of which are expected to show substantial growth in the 1970's.

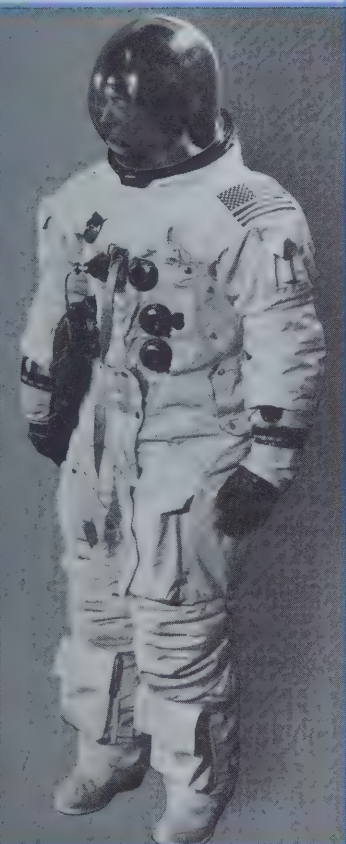
During the year, a licensing agreement with Pampus KG of Dusseldorf, Germany, was signed for the production and distribution of the Dodge line of coated products.

Pampus, Europe's largest manufacturer of fluorocarbon products, will produce and market these products throughout Europe.

### The 1970's

The outlook for 1970 is good. Sales are expected to be augmented by the development of a new distributor organization which will provide Dodge with deeper penetration in existing market areas, while freeing its OEM marketing organization for new sales development.

Additional sales are also anticipated from new product introduction, particularly in the pressure sensitive tape field. Engineering and Development activities, strengthened by the addition of four engineers with degrees in Mechanical and Chemical Engineering, and Chemistry, will be concentrated in the tape area in 1970.



Products, such as PTFE coated Beta Glass Yarn, produced by Engineered Yarns, are used in suits worn by the astronauts.



Engineered Yarns products are used in such diverse applications as window screen, automotive and household upholstery, and ladies' boots.

## Engineered Yarns, Inc.

Coventry, Rhode Island

1969 Market Sales: 22% Industrial; 75% Consumer;  
3% Military

### 1969 Operations

Engineered Yarns, Inc., O/E/N's 50 per cent-owned subsidiary in Coventry, Rhode Island, processes yarns with special properties achieved through a proprietary combination of plastics and synthetic materials.

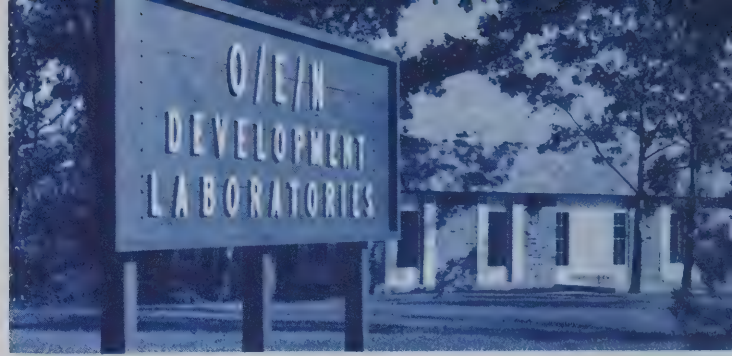
Its line of vinyl coated glass yarns is used by weavers of window screening and a line of vinyl coated rayon yarns is used by manufacturers of wiring harnesses for trucks, farm machinery and other heavy equipment.

Other products include vinyl coated nylon for automobile upholstery fabrics; PTFE coated Beta glass yarn for astronauts' suits; Phenolic coated nylon yarn for weavers of large continuous woven belts used in the paper industry; semi-conductive yarn for the wire and cable industry; Silicone rubber coated yarns for hose manufacturers, and a new line of RFL (Resorsonal Formaldehyde Latex) coated yarn for reinforcing rubber extrusions.

While 85 per cent of Engineered Yarns' sales are in vinyl coated yarns, the company has the capability and flexibility to produce yarns coated with other plastics such as Phenolic, Silicone, rubber, epoxies and polyester.

Major growth opportunities are being directed to the development of yarn for higher temperature applications as well as vinyl coated glass yarn for automobile and home upholstery.





## O/E/N Development Laboratories

*Madison, Wisconsin*

### 1969 Operations

The O/E/N Development Laboratories in Madison, Wisconsin, made significant expansions to its Microelectronic capabilities during the year.

In August, the Laboratories established a small Microelectronics production facility to meet growing thick film microcircuit requirements of all O/E/N subsidiaries and divisions.

In addition, a larger assembly capability is being established in O/E/N's Hong Kong plant.

These two facilities, operating as the O/E/N Microelectronics Division, are serving such microelectronics needs as integrated circuits for TV tuners for the Selectronics Division; micro-potentiometers for Techno-Components; microcircuit timing devices and rotary and pushbutton switches for the Oak Switch Division, and RF switches for McCoy Electronics.

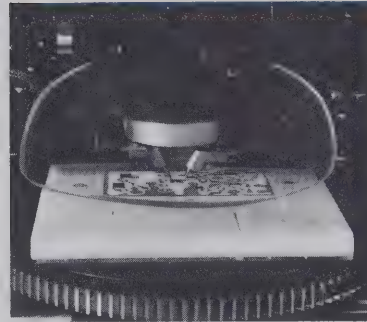
O/E/N Microelectronics at Madison performs all production engineering functions and does screen printing, firing and trimming of thick film networks.

The thick film substrates and discrete add-on parts will be shipped to Hong Kong for final assembly, packaging and testing. Completed units are returned to Madison for final quality control checking before shipment to individual divisions.

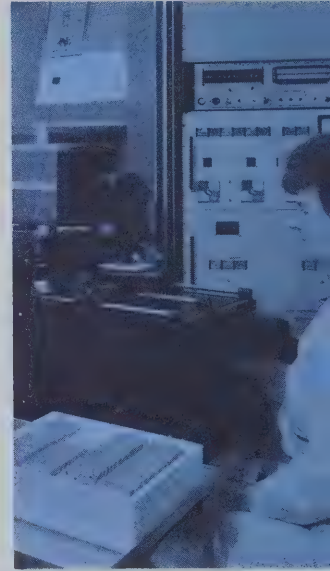
During 1969, the Laboratories participated in the development or adaptation of thick film techniques to such O/E/N products as an integrated circuit/switch combination, which utilizes Oak rotary switch contacts and thick film techniques whereby resistors, capacitors, transistors and other components are microminiaturized via latest state-of-the-art thick film integrated circuit techniques. The IC/Switch concept is readily adaptable to rotary, pushbutton, slide, toggle and lever switch types. Other developments in which the Laboratories participated were a  $\frac{3}{8}$  inch square thick film potentiometer, switchable crystal filters, and miniature oscillators.

The addition of Microelectronics to O/E/N's conventional products creates a major marketing opportunity for the future. In the case of modules packaged integrally with switches, the value of the end product is increased from five to 15 times.

In addition, the Lab coordinates with O/E/N's subsidiaries and divisions in gathering market and necessary specific data for evaluation of new product concepts prior to investment of funds for engineering efforts.



Closeup of Laser Resistor Trimming operation which self-seals the resistor element and eliminates the additional polyurethane sealing operation.



Recent acquisition at O/E/N's Development Laboratories in Madison is a Laser Resistor Trimmer.

A 7,200 square foot addition to the present Madison facility is planned for 1970 for research and development programs related to engineering, and to provide for growth of the new Microelectronics production facility.

Total O/E/N investment in research and engineering, including that at the divisional level, amounted to \$3.3 million in 1969, equivalent to 3.9 per cent of sales.

O/E/N's expenditures for these activities are budgeted at \$3.8 million in 1970.

O/E/N India Limited, 20,000 square foot relay and switch assembly operation at Electrogiri, India.



## International Operations

The international operations of O/E/N improved their performance in 1969 as they collectively reported increases in both sales and earnings over 1968 levels.

During the year, the international companies continued to diversify into new O/E/N component lines while successfully increasing their market penetration in historic product areas.

A major expansion was formalized in December 1969, when the 20,000 square foot facility of O/E/N India Limited was dedicated. Located in Electrogiri, near Cochin in Southern India, the jointly-owned operation produces rotary switches and industrial relays for use in communications systems, data processing equipment and appliances.

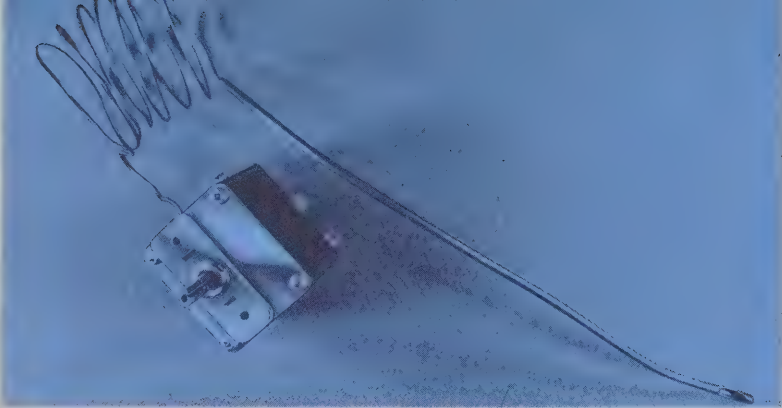
O/E/N India was established as a joint venture between O/E/N, the Kerala State Industrial Development Corporation, and Geomaths, a group of private Indian investors.

Oak Electro/netics Corp. (Japan) Ltd., initially activated as a purchasing organization for all companies in the O/E/N world-wide organization, has expanded its capability to provide a variety of services to all O/E/N divisions. For example, O/E/N Japan is currently seeking marketing arrangements for component lines complementary to those of O/E/N manufacture, which can be sold successfully in the U.S.

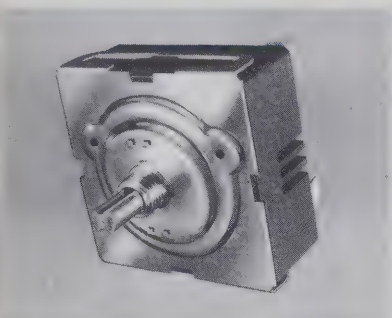
An agreement was also negotiated with Murata Mfg. Co. of Kyoto, Japan, whereby O/E/N will receive royalties from all television tuners sold by Murata. The agreement calls for royalties on sales in the territories of Japan and Okinawa. Concurrent with this agreement was the sale of O/E/N's 49 per cent interest in Japan Electro Components Company, Ltd., formerly held with Murata.

A review of individual O/E/N international operations in 1969 follows.





Series 100 Electric Range Thermostat produced by O/E/N Canada



O/E/N Canada Series 2080 Infinite Control.

## O/E/N Canada Ltd.

Aurora, Ontario, Canada

1969 Market Sales: 80% Appliance Components; 20% Industrial

### 1969 Operations

Sales of appliance controls by O/E/N Canada in 1969 were lower than anticipated due to declining electric cooking range sales, as well as price cutting among component producers. The impact on operations was softened through extensive cost control efforts, most notably improved manufacturing techniques.

### New Product Developments

In order to offset these difficulties and broaden its base for future growth, O/E/N Canada has effectively penetrated the U.S. appliance market with its new low-cost Series 100 electric range thermostats. This smaller device has been finding greater acceptance among range manufacturers as the trend in appliance controls continues toward more compact units.

Additional and accelerated penetration of the U.S. market for the Series 100 thermostat is anticipated as a result of the Harper-Wyman sales organization assuming U.S. sales representation for the Canadian company. The experience, knowledge and nationwide coverage of the Harper-Wyman organization is expected to provide invaluable assistance to O/E/N Canada in contacting and serving U.S. customers with its thermostats and complementary range controls.

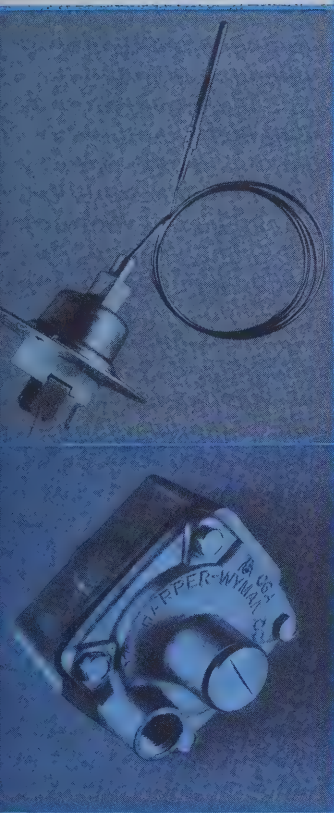
### The 1970's

O/E/N Canada expects greatly increased sales in the 1970's. Optimism is predicated on acceptance of its new low-cost thermostat line, growing usage of electric cooking ranges and penetration with prime customers such as IBM.

Canadian consumers, like their U.S. counterparts, are increasingly drawn to electric glass top ranges as well as electric cooking in the expanding mobile home industry.

Both of these market areas offer significant sales opportunities to O/E/N Canada.

Major emphasis in 1970 and beyond will be placed on increasing both the U.S. and Canadian market share for not only thermostats, but infinite controls, appliance and Oak rotary switches as well.



Harper-Wyman Flame Switch.

Harper-Wyman Range Pressure Regulators control the flow of gas to the appliance burner.

## Harper-Wyman International

*1969 Market Sales: 100% Appliance Components*

### 1969 Operations

Harper-Wyman Company subsidiaries in Mexico, Venezuela and England produce essentially the same type of appliance components for their respective domestic appliance industries as does the parent company in the United States.

In addition, Harper-Wyman de Mexico and Harper-Wyman de Venezuela produce a complementary line of control devices for LP gas equipment under license from the Bastian-Blessing Division of Astro Controls, Inc.

All three operations reported strong sales increases in 1969 over the previous year. The Mexico City and Caracas-headquartered companies, particularly, have participated in the strong growth of their respective economies.

Harper-Wyman de Venezuela, which historically has relied on its Mexican and U.S. affiliates for parts, accelerated its planned vertical integration to meet changing government economic policies in Venezuela. Recognizing that oil reserves, which provide a basic source of national income, will seriously diminish over the next 20 years, the Venezuelan government has restructured import policies in a move to broaden its industrial base. As a result, company profits in 1969 were affected by start-up costs attributed to the establishment of forging and machining operations.

### The 1970's

The outlook for 1970 and beyond remains strong, with growth of the gas range industry and LP gas equipment expected to be between 10 and 15 per cent annually through at least the next five years.

Harper-Wyman de Mexico is the major supplier of components and controls to the Mexican gas appliance industry. Strengthening of this position is expected in 1970 by the introduction of a newly-designed oven thermostat, a new LP cylinder valve and a new LP gas pressure regulator. Harper-Wyman Ltd., acquired in 1965, reported a significant sales increase with a somewhat narrower product line than its Pan American counterparts, principally consisting of pilot valves, filters, burner valves and fittings.

The English company, located in Malvern Link, is readying for 1970 introduction a new oven thermostat and mercury flame valve for the British gas cooker industry.



## Diamond H Controls Ltd.

Norwich, England

1969 Market Sales: 63% Appliance Components; 32% Industrial;  
5% Military

### 1969 Operations

Diamond H Controls Ltd. reported record sales in 1969, 6 per cent higher than 1968, despite fully activated government restraints on the British economy.

The English subsidiary succeeded in offsetting a slowed rate of growth in the British market for electric range and cooker controls in 1969, through increased market penetration with its line of thermostats and energy regulators.

### New Product Developments

Diamond H Controls continued to diversify into the British electronics market with greater sales of Oak-type switches and by launching production of custom-made electronic controllers, used in such contrasting applications as business machines and blood banks.

At the same time, the company moved to further consolidate its position in the appliance control field with development of a high-temperature thermostat for self-cleaning ovens, and a newly designed low-cost oven thermostat. Additional new products to be marketed in 1970 include an electronic control for hair dryers and another for commercial cooking units.

### The 1970's

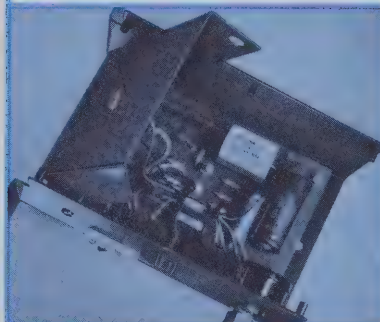
In an organizational move designed to integrate operations, relay production will be transferred from London to Norwich during 1970 to permit intensified emphasis on production cost controls and profitability.

The company recently completed a 30,000 square foot addition to its Norwich plant which will house the relay operation as well as its new product lines for the electronics market.

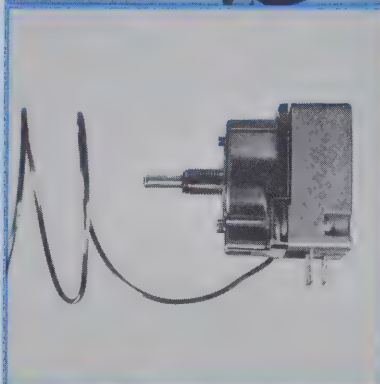
Relay operations are currently housed in 25,000 square feet of leased facilities in London.

Diamond H Controls anticipates that in 1970 its electronics product lines will show the most growth. At the same time, it aims to achieve penetration of new sectors of the appliance market with adapted versions of its cooker controls and, beyond 1970, with new types of control.

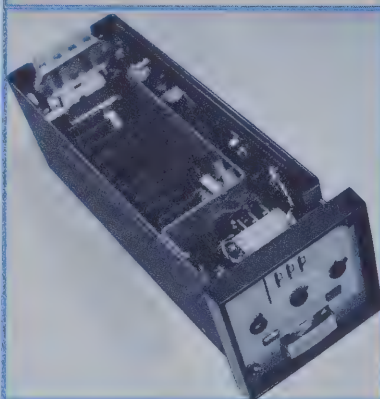
In the first half of 1970, the company will commence manufacture of quartz crystal filters of its own design. Newly-developed proprietary electronic devices, plus completed introduction of the full range of the latest molded Oak rotary switches by the end of 1970, are expected to contribute substantially to sales in coming years.



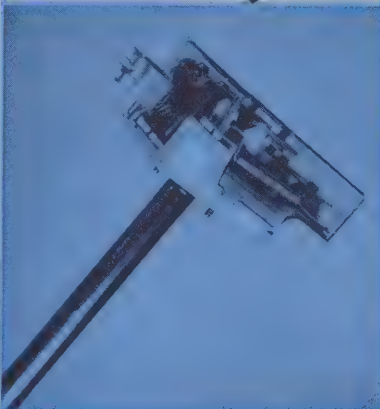
Diamond H Controls Electronic Temperature Controller for copying machines.



New Diamond H Controls Electric Oven Thermostat.



Diamond H 3-Term Temperature Controller.



Self-Clean Oven Thermostat produced by O/E/N's English company, Diamond H Controls.



Diamond H Switches, Pietermaritzburg, South Africa.

## **Diamond H Switches (S.A.) Pty., Ltd.**

*Pietermaritzburg, South Africa*

*1969 Market Sales: 100% Appliance Components*

### **1969 Operations**

Diamond H Switches in South Africa reported substantially increased sales and profits in 1969, reflecting a continued strong economy in the Republic of South Africa.

During the year the company completed a 13,500 square foot addition to its plant in Pietermaritzburg to meet expanded production requirements for its line of appliance controls and production of new relay and low power switch products.

Traditionally a supplier of components to the appliance industry, Diamond H Switches in 1969 began expansion of its engineering and sales departments to take advantage of identifiable near-term market opportunities in the electronics industry.

Initial plans call for the introduction of low power rotary switches designed by the Oak Switch Division in the U.S., and relays designed to meet requirements of South African manufacturers. Both products will be directed to the industrial segment of the South African electronics market.

In implementing this diversification, the company has established two separate divisions. The traditional appliance control operation will continue to serve the appliance market as well as concentrate on increased penetration to maintain the dominant position it now holds. A new electronics division has been formed to identify customers and promote the company's capabilities in the rapidly-expanding industrial electronics market in South Africa.

### **New Product Developments**

Principal new product introduced in 1969 was a Type 181 Water Heater Thermostat.

Major product development concentration for the future will be in the adaptation of Oak low power rotary switches for the South African electronics market, including the 1/2 inch Subminiature, 1 inch miniature, as well as "Multidex" multi-purpose rotary switches. Potential applications for these components are expected to be found in military applications and South African government agencies.

### **The 1970's**

By the end of 1974, Diamond H Switches expects that its sales content will include 30 per cent to the electronics industry. At the same time, sales to the appliance industry are expected to meet a projected growth rate of 20 per cent per year, from both existing and new products.



## Oak Electro/netics Holland N.V.

Emmen, Holland

1969 Market Sales: 45% Industrial; 55% Military

### 1969 Operations

O/E/N Holland reported an 81 per cent increase in sales over the previous year.

The substantial increase came from the acceptance of Oak-designed rotary switches and potentiometer products by major European concerns as Philips, Siemens and Telefunken, as well as the counterparts of such major U.S. customers as Tektronix, Hewlett-Packard and IBM.

Another strong contributing factor to the excellent volume gain was the successful transition from independent sales representatives to direct sales in Germany, France and the Benelux countries.

Additional sophistication in cost controls, coupled with the higher volume, significantly improved the division's performance.

### Product Development Activities

Acceptance of O/E/N products on the European continent during the year was so encouraging that seven additional U.S.-designed components have been scheduled for introduction in 1970. These include various types of rotary and pushbutton switches of the type produced by the Oak Switch Division; indicator lights designed by Marco-Oak Industries, and Cermet and subminiature potentiometers produced by Techno-Components.

O/E/N Holland has developed a strong potential market for a number of microelectronic switches for applications among European producers of industrial and commercial equipment, such as business machines, data processing, computers and related products.

The Cermet potentiometer market is particularly strong in some segments of European industry where the transition from wire wound potentiometers to thick film units has been rapid.

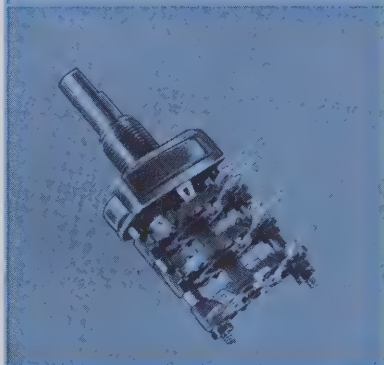
### The 1970's

O/E/N Holland has an excellent growth potential in the '70's, with strong immediate volume and profit growth available through the introduction of U.S.-designed O/E/N components.

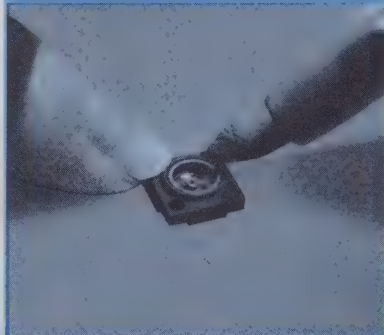
While available market data is not as comprehensive and detailed in the various European nations as it is in the United States, O/E/N Holland foresees strong market growth for new components. Excellent opportunities also exist for greater market penetration through strong acceptance of its growing line of quality components.



Indicator Lights produced by O/E/N Holland are for instrumentation applications.



Oak Type A Rotary Switch produced at Holland.



Potentiometers produced by O/E/N Holland are so small that most assembly and inspection functions are performed through high-power, lighted magnifying glasses.



## Market Growth in the '70's

### Domestic

Sales of electronic components will continue to grow at a pace above the U.S. economy taken as a whole over the next few years. Studies of the marketplace indicate the existence of several dominating trends within the components industry.

- 1—A steady, average component sales growth rate of 7 per cent annually through 1974.
- 2—Strong performance in selective markets, such as computers and automated industrial equipment.
- 3—More stress on reliability and the marriage of existing technologies in new products.

Despite the current slowdown, selected market segments look strong and are expected to significantly outpace the projected growth rate of the industry.

Component sales for computer and computer-related equipment are projected to double from \$1.2 billion in 1970 to \$2.6 billion in 1974.

A 9.5 per cent annual increase is envisioned for components used in industrial equipment, rising from \$810 million to \$1.2 billion in five years.

### International

In 1969, the International Operations of O/E/N emerged as stronger subsidiaries with competent managements. Strategically located, the companies are now able to serve the needs of nearly every major world electronics and electromechanical market.

O/E/N's international companies entered 1970 in a second stage of maturity, capable of extending technological breakthroughs of O/E/N's domestic operations to their respective markets. Continuing divisional new product programs will permit further participation in the rapid economic growth predicted for many foreign nations in the next decade.

While increasing foreign competition based on rapid technological development abroad is foreseen, it is confidently anticipated that the constant interchange of ideas and technical developments among operations of the O/E/N world-wide group will maintain and widen their individual and collective market positions.





## CONSOLIDATED

## ASSETS

	1969	1968 (Note 2)
<b>CURRENT ASSETS:</b>		
Cash .....	\$ 2,270,689	\$ 2,321,599
Receivables, less reserve of \$342,000 in 1969 and \$326,000 in 1968 .....	13,524,821	13,010,002
Inventories, at the lower of first-in, first-out cost or market. ....	22,092,699	22,731,473
Total current assets .....	<u>\$37,888,209</u>	<u>\$38,063,074</u>
 <b>PLANT AND EQUIPMENT, at cost (Note 7):</b>		
Land .....	\$ 1,345,280	\$ 1,314,401
Buildings .....	12,102,049	11,747,591
Machinery and equipment .....	17,900,108	16,758,670
	<u>\$31,347,437</u>	<u>\$29,820,662</u>
Less—Accumulated depreciation .....	14,134,970	12,648,870
	<u>\$17,212,467</u>	<u>\$17,171,792</u>
 <b>OTHER ASSETS:</b>		
Prepaid insurance, interest, etc. ....	\$ 903,112	\$ 613,586
Cash surrender value, life insurance .....	198,054	183,902
Investments in affiliated companies (Note 1) .....	256,125	619,300
Patents and debenture expense, less amortization (Note 3) .....	282,296	324,226
	<u>\$ 1,639,587</u>	<u>\$ 1,741,014</u>
	<u>\$56,740,263</u>	<u>\$56,975,880</u>

## Notes to Consolidated Financial Statements

## (1) Principles of Consolidation:

The consolidated financial statements include the accounts of the Company and all of its subsidiaries. The accounts of foreign subsidiaries have been included in the consolidated financial statements on the basis of the official rates of exchange except plant and equipment, capital stock and surplus which have been converted at historical rates, where applicable. It is the Company's policy to provide for deferred Federal income taxes which will be payable upon the subsequent distribution of the earnings of certain foreign subsidiaries. The investments in affiliated companies have been adjusted to underlying book value at December 31, 1969, and their net income is included in the consolidated statement of income. During 1969 the Company sold its 49% interest in a Japanese corporation for a gain of \$132,345 (net of income taxes) and acquired the remaining 20% minority interest of a Mexican subsidiary and an additional 40% interest in a Venezuelan subsidiary.

## (2) Poolings of Interests:

On March 5, 1969, the Company's shareholders approved the acquisition of the business and substantially all of the assets of Harper-Wyman Company and subsidiaries in exchange for 480,000 shares of common stock which were subsequently reduced to 440,000 shares. During 1969 and February 1970, the Company exchanged 57,489 shares of its common stock for the business and net assets of two other companies. These transactions have been accounted for on a pooling-of-interests basis, and the accompanying consolidated financial statements for the year ended December 31, 1969, include the financial statements of the acquired companies. The accompanying consolidated financial statements for 1968 have

been restated to include the acquired companies and have been revised to reflect in miscellaneous expense, moving expenses of \$211,271 which were previously reported as a separate item. Net sales and net income of the company acquired in February 1970 were approximately 1% and 4% respectively of consolidated net sales and net income for 1969 and 1968.

## (3) Long-Term Debt:

The 4<sup>3</sup>/<sub>8</sub>% subordinated convertible debentures are due \$1,000,000 annually commencing March 1, 1978. The debentures are convertible at any time prior to maturity, unless previously redeemed, into common stock of the Company. The current conversion price of \$34.67 per share, subject to adjustment in certain events, has been adjusted as a result of the acquisitions in 1969 and 1970.

The 5% note payable is due \$400,000 annually from 1969 through 1983 and \$500,000 in 1984.

The debt agreements provide certain restrictions upon the payment of cash dividends and the purchase or redemption of any class of stock. At December 31, 1969, \$9,430,000 of consolidated retained earnings was not subject to these restrictions.

## (4) Cumulative Convertible Preferred Stock:

Dividends on the preferred stock are cumulative at \$4.375 per share. Preferred shares are callable at \$100 per share at the option of the Company any time subsequent to June 30, 1972. Based upon shares outstanding at December 31, 1969, the total call price would be \$8,037,400. The 80,374 shares of preferred stock are convertible into 185,277 shares of common stock. Each share of preferred stock is entitled to 1/2 vote. During 1969, 823 shares of common stock were issued in connection with the conversion of 371 preferred shares.

## BALANCE SHEETS

December 31, 1969 and 1968

## LIABILITIES

	1969	1968 (Note 2)
<b>CURRENT LIABILITIES:</b>		
Notes payable to banks.....	\$ 4,311,620	\$ 3,003,739
Current portion of long-term debt.....	748,076	772,237
Accounts payable and accrued expenses.....	7,531,053	8,468,567
Accrued income taxes.....	694,536	658,780
Total current liabilities.....	\$13,285,285	\$12,903,323
DEFERRED INCOME TAXES.....	\$ 292,000	\$ 289,000
RESERVE FOR PENSIONS (Note 6).....	\$ 743,408	\$ 655,764
<b>LONG-TERM DEBT, less amounts due within one year:</b>		
4 <sup>3</sup> / <sub>8</sub> % subordinated convertible debentures (Note 3).....	\$10,000,000	\$10,000,000
5% note payable (Note 3).....	5,700,000	6,100,000
Notes payable of subsidiaries, payable in variable annual amounts to 1986..	1,428,399	1,773,515
	\$17,128,399	\$17,873,515
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARIES.....	\$ 444,080	\$ 636,652
<b>STOCKHOLDERS' INVESTMENT (Notes 2, 3 and 5):</b>		
Cumulative convertible preferred stock, \$5 stated value, authorized 400,000 shares, issued 80,374 shares in 1969 and 80,745 shares in 1968 (liquidating preference \$8,037,400 in 1969) (Note 4).....	\$ 401,870	\$ 403,725
Common stock, \$1 par value, authorized 4,000,000 shares, issued 1,681,038 shares in 1969 and 1,677,965 in 1968.....	1,681,038	1,677,965
Paid-in surplus .....	1,924,373	1,900,168
Retained earnings .....	20,921,805	20,704,688
Less—Treasury stock, at cost (3,700 shares in 1969 and 3,050 in 1968).....	(81,995)	(68,920)
	\$24,847,091	\$24,617,626
	\$56,740,263	\$56,975,880

**(5) Stock Reservations:**

Under stock option plans, 107,794 shares of the Company's common stock are reserved for issuance to officers and key employees. During 1969 options to purchase 8,150 shares at \$15.50 per share and 5,000 shares at \$16.75 per share were granted and options to purchase 1,500 shares at \$11.27 per share and 750 shares at \$11.40 per share were exercised.

As of December 31, 1969, 468,483 shares of authorized and unissued common stock were reserved for issuance on conversion of the 4<sup>3</sup>/<sub>8</sub>% subordinated convertible debentures and the convertible preferred stock. In February 1970, the current conversion price of the convertible debentures was adjusted and an additional 5,228 shares of common stock were reserved for issuance on conversion.

**(6) Pension Plans:**

The Company has a pension plan which covers substantially all salaried employees. Obligations under the plan are funded on a level cost basis using a group annuity contract with an insurance company. During 1969 the Company provided \$230,370 for the plan. The Company's subsidiary, Harper-Wyman Company, has a pension plan which provides for retirement benefits to substantially all of its employees. During 1969, Harper-Wyman provided \$133,000 for the plan, which includes amortization of past service costs over a 30 year period; however, no payments have been made to the fund since 1965. Certain other subsidiaries have retirement plans and during 1969 \$139,686 was provided for these plans. The total value of fund assets exceeded the actuarially computed value of vested benefits for all plans as of December 31, 1969.

**(7) Property, Plant and Equipment:**

Depreciation on buildings is generally provided on the straight-line method for accounting purposes and at certain locations, depreciation is provided on the declining-balance method for income tax purposes. Depreciation of all other property is provided over the estimated useful lives principally on accelerated methods for accounting purposes. The use of the declining-balance method for tax purposes has resulted in a tax deferral which is included in deferred income taxes.

**(8) Net Income per Share of Common Stock:**

Net income per share of common stock (\$.74 in 1969 and \$.69 in 1968) is based upon the average number of common shares outstanding during each year, after recognition of a full year's dividend requirements on the preferred shares. In computing net income per share, average common shares outstanding during each period exclude an additional 40,000 shares of common stock which were to be issued if Harper-Wyman Company attained a specified net income for the year ended December 31, 1969. Since Harper-Wyman earned less than the specified amount in 1969, these shares, being held in escrow, will be returned to the Company in 1970.

There would be no dilution in net income per share for 1969 if the 4<sup>3</sup>/<sub>8</sub>% subordinated convertible debentures, the \$4.375 convertible preferred shares and the stock options were converted into common shares at the conversion ratios in effect at December 31, 1969.



CONSOLIDATED STATEMENTS OF INCOME FOR  
THE YEARS ENDED DECEMBER 31, 1969 AND 1968

	1969	1968 (Note 2)
NET SALES .....	\$85,629,695	\$90,016,440
COST OF SALES.....	<u>65,953,905</u>	<u>70,746,079</u>
Gross income.....	\$19,675,790	\$19,270,361
SELLING, ENGINEERING AND ADMINISTRATIVE EXPENSES.....	<u>15,874,951</u>	<u>15,233,496</u>
Income from operations.....	<u>\$ 3,800,839</u>	<u>\$ 4,036,865</u>
OTHER INCOME (EXPENSE), net:		
Interest expense .....	\$ (1,194,130)	\$ (1,074,034)
Miscellaneous, net .....	<u>375,581</u>	<u>265,103</u>
	<u>\$ ( 818,549)</u>	<u>\$ ( 808,931)</u>
Income before income taxes and extraordinary item.....	\$ 2,982,290	\$ 3,227,934
PROVISION FOR INCOME TAXES.....	<u>1,556,000</u>	<u>1,746,000</u>
Income before extraordinary item.....	\$ 1,426,290	\$ 1,481,934
EXTRAORDINARY ITEM, gain on sale of investment in affiliated company, net of applicable income tax of \$95,000 (Note 1) .....	<u>132,345</u>	<u>—</u>
Net income .....	<u>\$ 1,558,635</u>	<u>\$ 1,481,934</u>
NET INCOME PER COMMON SHARE (Note 8):		
Before extraordinary item.....	\$ .66	\$ .69
Extraordinary item .....	<u>.08</u>	<u>—</u>
Net income .....	<u>\$ .74</u>	<u>\$ .69</u>

CONSOLIDATED STATEMENTS OF SOURCE AND APPLICATION OF FUNDS  
FOR THE YEARS ENDED DECEMBER 31, 1969 AND 1968

	1969	1968 (Note 2)		1969	1968 (Note 2)
SOURCE:			APPLICATION:		
Net income .....	\$1,558,635	\$1,481,934	Net additions to plant and equipment .....	\$2,935,468	\$3,198,944
Depreciation and amortization...	2,936,724	2,983,735	Cash dividends:		
Decrease (increase) in investments in affiliated companies .....	363,175	(96,894)	Common .....	969,962	727,581
Proceeds from exercise of stock options .....	25,455	43,066	Preferred .....	352,547	354,451
Decrease in working capital.....	556,827	384,107	Reduction of long-term debt.....	745,116	642,192
	<u>\$5,440,816</u>	<u>\$4,795,948</u>	Decrease (increase) in minority interest in consolidated subsidiaries .....	192,572	(90,948)
			Other items, net.....	245,151	(36,272)
				<u>\$5,440,816</u>	<u>\$4,795,948</u>

CONSOLIDATED STATEMENTS OF PAID-IN SURPLUS AND RETAINED EARNINGS  
FOR THE YEARS ENDED DECEMBER 31, 1969 AND 1968

	1969	1968 (Note 2)
PAID-IN SURPLUS		
BALANCE, BEGINNING OF YEAR, as restated.....	\$ 1,900,168	\$ 1,858,491
ADD:		
Excess of option price over par value of previously unissued common stock.....	23,205	39,416
Miscellaneous items, net.....	1,000	2,261
BALANCE, END OF YEAR.....	<u>\$ 1,924,373</u>	<u>\$ 1,900,168</u>
RETAINED EARNINGS		
BALANCE, BEGINNING OF YEAR, as restated.....	\$20,704,688	\$20,323,795
ADD (DEDUCT):		
Net income for the year.....	1,558,635	1,481,934
Cash dividends:		
Common (\$.64 per share).....	( 969,962)	( 727,581)
Preferred (\$4.375 per share).....	( 352,547)	( 354,451)
Dividends of acquired company prior to pooling-of-interests.....	( 19,009)	( 19,009)
BALANCE, END OF YEAR( Note 3).....	<u>\$20,921,805</u>	<u>\$20,704,688</u>

**To the Stockholders and the  
Board of Directors**

OAK ELECTRO/NETICS CORP.

We have examined the consolidated balance sheets of OAK ELECTRO/NETICS CORP. (a Delaware corporation) and subsidiaries as of December 31, 1969 and 1968, and the related consolidated statements of income, paid-in surplus and retained earnings, and funds for the years then ended. Our examinations were made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

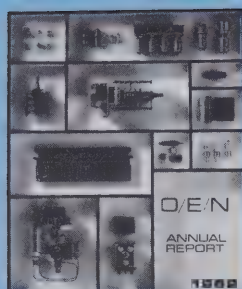
In our opinion, the accompanying consolidated balance sheets and consolidated statements of income,

paid-in surplus and retained earnings, and funds present fairly the financial position of OAK ELECTRO/NETICS CORP. and subsidiaries as of December 31, 1969 and 1968, and the results of their operations and the source and application of funds for the years then ended, in conformity with generally accepted accounting principles consistently applied during the years.

ARTHUR ANDERSEN & CO.

Chicago, Illinois  
February 20, 1970





OAK ELECTRO/NETICS

## OAK ELECTRO/NETICS CORP and subsidiaries

	1969	1968	1967
<b>OPERATIONAL RESULTS</b>			
Net Sales .....	\$85,629,695	\$90,016,440	\$92,301,256
Income Taxes .....	1,651,000	1,746,000	2,145,000
Net Income .....	1,558,635	1,481,934	2,321,998
Net Income per Common Share (1) .....	\$ .74	\$ .69	\$1.26
Cash Dividends—Common .....	\$ 969,962	\$ 727,581	\$ 684,144
Cash Dividends per Common Share .....	\$ .64	\$ .64	\$ .64
<b>FINANCIAL POSITION</b>			
Current Assets .....	\$37,888,209	\$38,063,074	\$36,667,992
Current Liabilities .....	13,285,285	12,903,323	11,171,599
Current Ratio .....	2.9	2.9	3.3
Working Capital .....	\$24,602,924	\$25,159,751	\$25,496,393
Property, Plant and Equipment (Net) .....	17,212,467	17,171,792	16,589,598
Total Assets .....	56,740,263	56,975,880	54,879,653
Long-Term Debt .....	17,128,399	17,873,515	18,477,289
Earnings Reinvested in the Business .....	217,117	380,893	1,477,844
Shareholders' Investment .....	24,847,091	24,617,626	23,860,437
<b>GENERAL STATISTICS</b>			
Return on Shareholders' Investment—Beginning .....	6.33%	6.12%	10.49%
Capital Expenditures (Excluding acquisitions) .....	\$ 2,935,468	\$ 3,198,944	\$ 3,587,275
Depreciation and Amortization .....	2,936,724	2,983,735	2,636,373
Cash Flow from Operations .....	4,495,359	4,465,669	4,958,371
Cash Flow per Common Share .....	\$2.75	\$2.73	\$3.16
Common Shares Outstanding—Average .....	1,636,253	1,633,735	1,567,747
Number of Shareholders .....	5,104	4,494	4,385
Number of Employees .....	7,312	8,998	8,315
Salaries and Wages .....	\$30,820,496	\$34,081,799	\$33,398,262
Common Stock Price Range .....	29½-10⅞	38⅞-22¾	48¾-18⅞

(1) After retroactive reflection of dividends on Preferred Shares issued for acquisitions which are treated as poolings of interests.  
Where applicable and significant, figures reflect poolings-of-interests treatments of acquired companies.

## TEN YEAR STATISTICAL REVIEW

1966	1965	1964	1963	1962	1961	1960
\$88,011,587	\$73,532,346	\$63,696,801	\$51,576,562	\$40,459,386	\$31,592,605	\$25,332,132
2,986,800	2,337,791	2,127,106	1,633,790	933,643	795,881	916,000
3,031,245	2,607,347	2,087,582	1,102,776	969,049	719,667	478,365
\$1.72	\$1.49	\$1.15	\$ .51	\$ .43	\$ .27	\$ .33
\$ 530,497	\$ 371,047	\$ 269,705	\$ 205,201	\$ 68,706	\$ 65,579	\$ 653,869
\$ .51	\$ .36	\$ .26	\$ .20	\$ .07	\$ .07	\$ .66
\$36,933,319	\$24,300,288	\$19,647,416	\$15,916,364	\$13,872,023	\$ 9,951,081	\$ 9,365,436
21,841,784	11,163,620	7,522,912	7,203,931	5,738,924	3,303,153	2,614,276
1.7	2.2	2.6	2.2	2.4	3.0	3.6
\$15,091,535	\$13,136,668	\$12,124,504	\$ 8,712,433	\$ 8,133,099	\$ 6,647,928	\$ 6,751,160
15,595,624	13,695,736	11,945,772	10,788,540	9,284,208	6,873,502	5,766,739
53,767,987	38,826,901	32,513,972	27,701,617	24,137,265	17,355,133	15,591,007
8,398,046	7,124,605	6,777,202	4,296,230	3,061,747	225,570	—
2,442,748	2,112,710	1,735,173	956,408	842,343	591,288	(203,422)
22,145,459	19,420,683	17,278,677	15,548,825	14,853,858	13,473,059	12,743,458
15.61%	15.09%	13.43%	8.25%	7.19%	5.65%	3.66%
\$ 4,324,787	\$ 2,729,990	\$ 3,084,742	\$ 2,586,108	\$ 1,421,139	\$ 1,642,795	\$ 3,276,665
2,455,457	2,093,473	1,803,241	1,519,212	1,259,168	941,141	671,159
5,486,702	4,700,820	3,890,823	2,745,188	2,228,217	1,660,808	1,149,524
\$3.53	\$3.05	\$2.53	\$1.77	\$1.45	\$1.10	\$ .80
1,555,755	1,539,695	1,538,683	1,548,433	1,534,423	1,504,963	1,432,098
4,131	3,981	3,923	3,848	4,008	3,965	4,128
9,492	7,812	6,958	5,152	4,729	3,420	2,813
\$32,039,791	\$26,460,267	\$24,404,807	\$19,518,581	\$15,648,483	\$12,604,299	\$10,608,308
30⅜-17	20⅞-10⅜	14⅛-9½	11⅞-8⅜	13⅛-8½	12⅛-9⅜	13⅝-9⅜

Where applicable, common share data adjusted to reflect 50% stock distribution made on August 12, 1966.

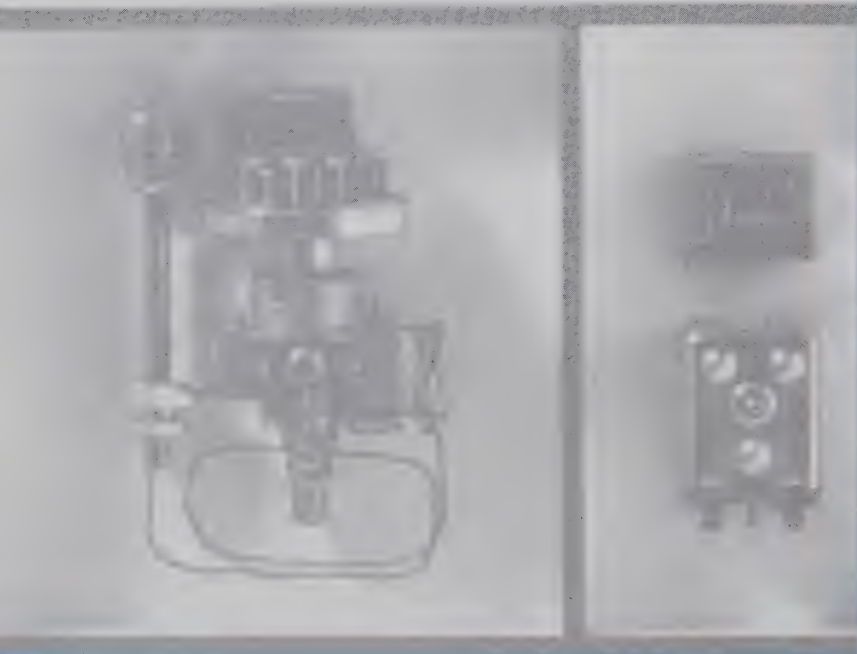




OAK ELECTRO/NETICS CORP. is an international organization of 14 domestic and 9 foreign companies in related fields.

All are dedicated to the development, engineering and manufacture of components and materials for the electrical, electronics, aerospace and appliance industries.

The company operates 31 plants through its wholly-owned subsidiaries and divisions in the U.S. and throughout the free world.



## *Company or Division*

Oak Manufacturing Co.

Hart-Advance Relay Division

Hart Indiana

Win-West Plastics

Selectronics Division

McCoy Electronics Company

Dodge Industries, Inc.

Circuit Materials Company

Engineered Yarns, Inc.

Atlantic Laminates, Inc.

Marco-Oak Industries

Techno-Components Corp.

Los Angeles Miniature Products, Inc.

Harper-Wyman Company

O/E/N Canada Ltd.

Harper-Wyman de Mexico, S.A. de C.V.

Harper-Wyman de Venezuela, S.A. de C.V.

Diamond H Controls Ltd.

Harper-Wyman Limited

Oak Electro/netics Holland N.V.

O/E/N India Limited

Oak Electro/netics Corp. (Hong Kong) Ltd.

Oak Electro/netics Corp. (Japan) Ltd.

O/E/N California

O/E/N Florida

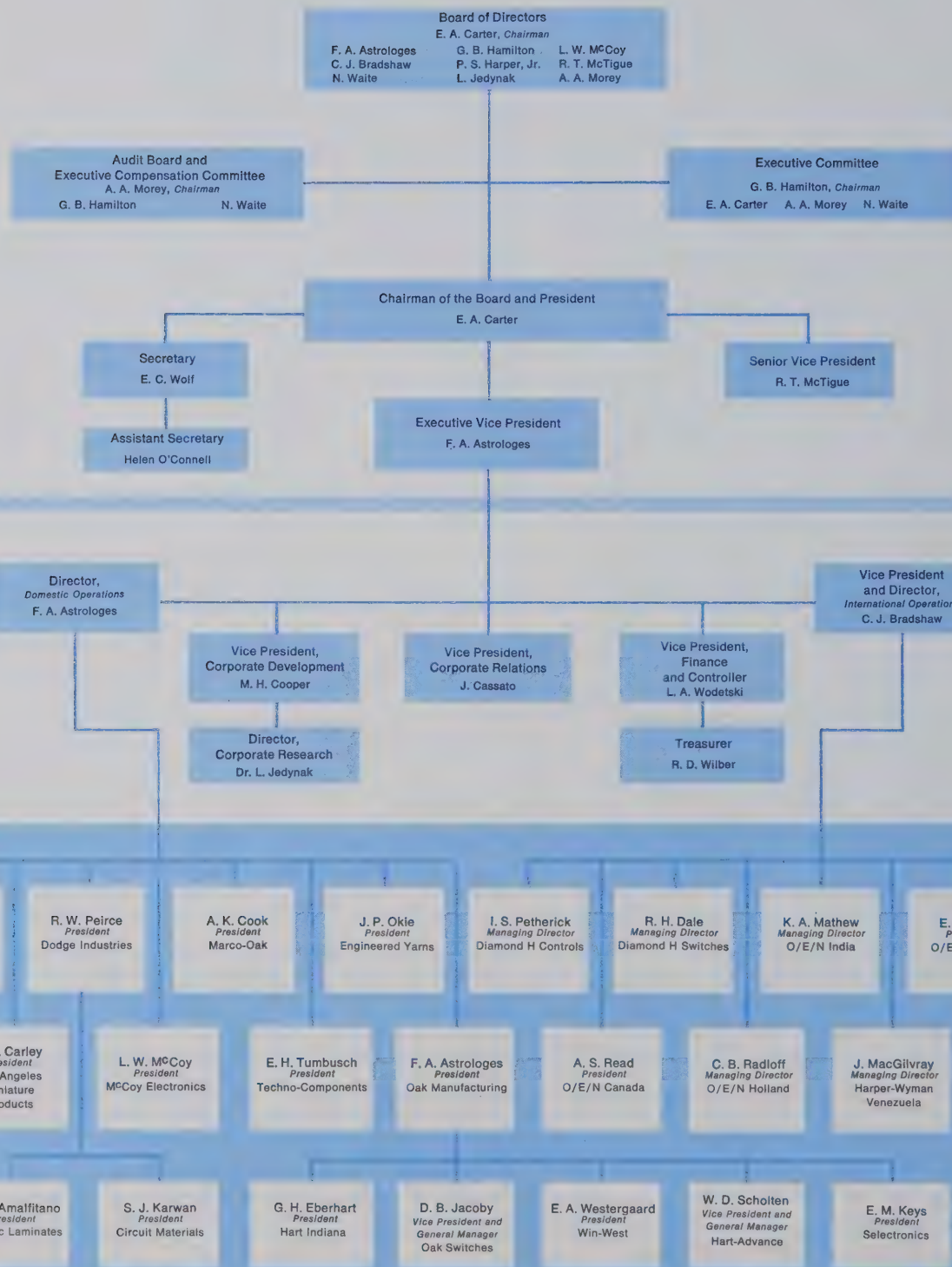
# Operating Organization

Location	Products	Applications
Crystal Lake, Illinois	Rotary and Pushbutton Switches/Rotary Solenoids/Choppers/Appliance Switches/Vibrators	Industrial Controls/Data Processing Equipment/Communications Systems/Military Equipment/Medical and Laboratory Equipment/Appliances
Crystal Lake, Illinois	Military, Industrial and Commercial Relays	Communications Equipment/Data Processing Equipment/Aircraft and Missile Guidance Control/Automated Equipment
Mishawaka, Indiana	Toolmaking/Diemaking/Fabricating Operations	Automotive Industry/Appliance Controls/TV Industry/Home Entertainment Field/Industrial Controls/Military Equipment
Wauconda, Illinois	Custom Molded Precision Plastic Materials of Thermoplastic and Thermosetting Resins	Various Electronic and Electrical Equipment
Crystal Lake, Illinois	VHF Television Tuners/UHF Television Tuners/FM Radio Tuners/CATV Converters	Television Industry/Radio Industry
Mt. Holly Springs, Pennsylvania	Quartz Crystals/Crystal Filters and Discriminators/Oscillators/Crystal and Component Ovens	Military and Commercial Communications Equipment/Two-Way Radios/Automatic Computer, Data Processing and Test Equipment/Timing Control Systems/Undersea and Navigational
Hoosick Falls, New York	PTFE Materials and Fabrics (Glass-Reinforced Tapes/Sheet Material/Belts/Coated Yarns/Spray Coating/Sealants/Copper and Aluminum Clads)	Missile and Aircraft Systems/Electrical Wiring Insulation/Photographic and Food Processing Industries/Industrial and Commercial Plumbing
Hoosick Falls, New York	Adhesive Coated and Laminated Films and Foils	Automotive, Computer and Communications Industries (With Emphasis on Printed Circuit Applications)
Coventry, Rhode Island	Plastic Coated Yarns (Vinyl Coated Nylon and Rayon Braid Yarns/Vinyl Coated Fiberglass Yarns/Thermo-set Plastic Coated Yarns)	Window Screening/Wiring Harnesses for Trucks, Farm Machinery and Other Heavy Equipment/Weaving of Heavy Industrial Fabrics/Automotive and Home Upholstery Fabrics
Franklin, New Hampshire	Metal Clad and Unclad Laminates (Glass Epoxy Sheet Laminates/Multi-Layer Materials/Polyimide Laminates/Geometric Configurations/Custom Production Shapes)	Single or Double Faced High Density Packaging for Printed Circuit Board and Related High Temperature Applications (Used in Computers and Data Processing Equipment)
Anaheim, California	Illuminated Pushbutton Switches/Indicator Lights/Rotary Switches	Data Processing Equipment/Control Panels for Aerospace and Industrial Applications/Space Vehicle Ground Checkout Systems/Signaling Equipment
Van Nuys, California	Miniature Wire Wound and Non-Wire Wound Trimming Potentiometers/Miniature Test Connectors	Airborne Radar and Communications Systems/Guidance Control Systems in Missile Applications/Computers and Data Processing Equipment
Gardena, California	Miniature and Subminiature Incandescent Lamps/Quartz Halogen Lamps/Neon Lamps	Aircraft Flight and Ground Support Panels/Aircraft Instruments/Readout Devices for Panel Systems/TV and Communications Equipment
Hinsdale, Illinois	Gas Controls and Components (Oven Thermostats/Valves/Burners/Ignition Equipment/Pressure Regulators/Heating Controls)	Industrial and Commercial Gas Ranges/Domestic Space and Central Heating Units
Aurora, Ontario, Canada	Infinite Controls/Hydraulic and Bi-Metal Thermostats/Rotary Switches/Snap-in Devices	Home and Industrial Appliances/Laboratory Equipment/Data Processing Equipment/Military Equipment
Mexico City, D.F.	Gas Controls and Components (Manual Valves/Ignition Equipment/LP Regulators and Valves/Automatic Controls)	Industrial and Commercial Gas Ranges/LP Gas Tanks and Cylinders
Caracas, Venezuela	Gas Controls and Components (Manual Valves/Ignition Equipment/LP Regulators and Valves/Automatic Controls)	Industrial and Commercial Gas Ranges/LP Gas Tanks and Cylinders
Norwich, England	Hydraulic Thermostats/Energy Regulators/Relays/Rotary and Toggle Switches/Snap-in Devices/Oak Rotary and Moduline Switches/Crystal Filters	Home and Industrial Appliances/Test and Laboratory Equipment/Missile and Aircraft Systems/Industrial Controls/Communications Equipment
Malvern Link, England	Gas Range Components (Oven Thermostats/Safety Devices/Valves/Filters/Ignition Equipment/Miscellaneous Fittings)	Industrial and Commercial Gas Ranges
Emmen, Holland	Rotary and Moduline Switches/Indicator Lights/Miniature Wire Wound Trimming Potentiometers	Data Processing and Business Machines/Scientific Instruments/Industrial Electronic Equipment
Electrogiri, India	Rotary Switches/Industrial Relays	Appliance Controls/Communications Systems/Data Processing Equipment
Kowloon, Hong Kong, B. C. C.	VHF Television Tuners/UHF Television Tuners/FM Radio Tuners	Television Industry/Radio Industry
Kawasaki, Japan	Sources and purchases parts and components	Serves all O/E/N companies and licensees
Los Altos, California and Inglewood, California	Representing: Oak Switches/Hart-Advance Relays/Marco-Oak Indicator Lights/Marco-Oak Presslites/McCoy Quartz Crystals (Los Altos only)/Techno-Components Potentiometers (Inglewood only)	
Ft. Lauderdale, Florida	Representing: Oak Switches/Hart-Advance Relays/Marco-Oak Indicator Lights/Marco-Oak Presslites/Techno-Components Potentiometers	



# Management Organization

## OAK ELECTRO/NETICS CORP

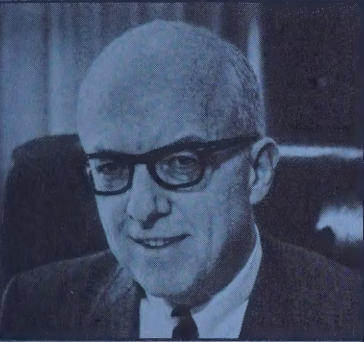




# BOARD OF DIRECTORS



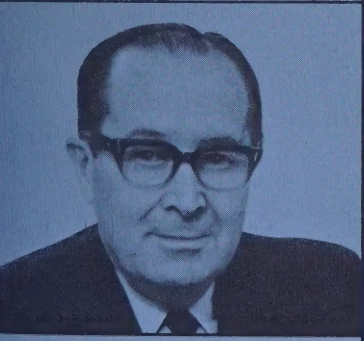
**Everitt A. Carter**  
*Chairman of the Board and President*



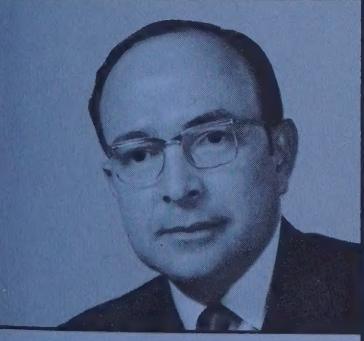
**Robert T. McTigue**  
*Senior Vice President*



**Frank A. Astrologes**  
*Executive Vice President*



**George B. Hamilton**  
*Chairman, Executive Committee*



**Carl J. Bradshaw**  
*Vice President and Director,  
International Operations*



**Albert A. Morey**  
*Chairman of the Board  
Marlennan Corporation*



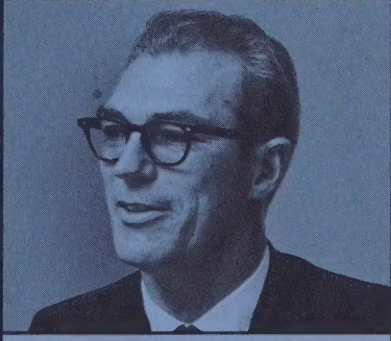
**Norman Waite**  
*Partner, Schliff Hardin Waite  
Dorschel & Britton*



**Luther W. McCoy**  
*President, McCoy Electronics  
Company*



**Philip S. Harper, Jr.**  
*President, Harper-Wyman Company*



**Leo Jedynak**  
*Director, Corporate Research*





## Elof Sandstrom 1892-1969

It is with sincere sorrow that we record the death on September 4, 1969, at the age of 77, of Elof Sandstrom, one of the founders and former Chairman of the Board of OAK ELECTRO/NETICS CORP.

During his 35 years of association with Oak, Mr. Sandstrom contributed tirelessly of his time and talents to the company's success. He was elected Chairman of the Board in 1949; served actively in that capacity until his formal retirement in 1962, and continued in a consulting capacity until 1967. His integrity, knowledge of Oak and the high respect generated by all who knew him served as a leading force in the company's growth.

Mr. Sandstrom's great legion of acquaintances will long remember and treasure his keen friendship, humor and unstinting loyalty.





Exterior view, New York Stock Exchange, Wall Street, New York City.



Trading Floor, Midwest Stock Exchange, LaSalle Street, Chicago, Illinois.

## General Offices

Crystal Lake, Illinois

## Annual Meeting

The Annual Meeting of the Corporation will be held at its general offices in Crystal Lake, Illinois, at 10:00 A.M., May 1, 1970.

## Stock Transfer Agents

The First National Bank of Chicago  
Chicago, Illinois

First National City Bank  
New York, New York

## Registrars

The Northern Trust Company  
Chicago, Illinois

The Chase Manhattan Bank, N.A.  
New York, New York

## Trustee Under the Debentures

The Northern Trust Company  
Chicago, Illinois

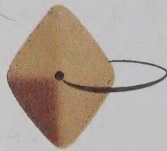
First National City Bank  
New York, New York

*New York Authenticating Agent*

## Stock Exchanges

New York Stock Exchange  
Midwest Stock Exchange





OAK ELECTRO/NETICS CORP

CRYSTAL LAKE, ILLINOIS 60014